

4462



# ANNUAL REPORT

ON THE

# HEALTH

OF THE

# CITY OF SHEFFIELD

For the Year 1928.



FRED. E. WYNNE, B.A., M.B., B.Ch., D.P.H.,

Medical Officer of Health





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# CONTENTS.

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	PAGE
ACREAGE OF CITY AND SUB-DISTRICTS...	9, 28
AGE AND SEX DISTRIBUTION OF POPULATION	9, 10, 30
ANTE-NATAL CLINIC	85, 88, 89
BABY CONSULTATIONS	85
BACTERIOLOGICAL AND CHEMICAL WORK	96, 103
BIRTHS AND BIRTH-RATES	10, 25
BLACK SMOKE NUISANCE	64
BRONCHITIS	13
CANAL BOATS ACTS	64
CANCER	14, 30
CENSUS 1911 AND 1921	9
CHART SHOWING VITAL AND MORTAL STATISTICS	(opposite) 6
CHART SHOWING TUBERCULOSIS IN SHEFFIELD, GREAT TOWNS, AND ENGLAND AND WALES	(opposite) 16
CHILD BIRTH—ACCIDENTS OF	51, 82
CHILD WELFARE	82-89
CLOSET ACCOMMODATION	65, 66
CONVERSION OF PRIVIES INTO WATER CLOSETS	65, 66
DAIRY INSPECTION	100
DEATHS AND DEATH-RATES	10, 25, 37-56
DISEASES OF ANIMALS ACTS	98
DISINFECTION	60
DRIED MILK SCHEME	18
FACTORIES AND WORKSHOPS	67
FISH AND CHIP SHOPS	68
FOOD	94, 100-105
GENERAL SANITARY WORK	60
HOSPITAL ACCOMMODATION AND ADMISSIONS	57-59
HOUSES	61-63, 76
HOUSES-LET-IN-LODGINGS	82
HOUSING ACTS	61-63, 76
ICE CREAM TRADE	68
ILLEGITIMACY	29
INFANT DEPOTS	85
INFANT MORTALITY	17, 29
INFECTIOUS DISEASES—NOTIFICATIONS UNDER AGE-PERIODS	34
Do. UNDER DISTRICTS	35
LARGE TOWNS, COMPARATIVE MORTALITY IN	22
MARRIAGES AND MARRIAGE RATES	10, 24
MATERNITY AND CHILD WELFARE	82-89
MATERNITY CLINIC	85, 88, 89
MATERNITY CLINIC MEDICAL OFFICER'S REPORT	88, 89
MATERNITY HOSPITAL	89
MEAT AND FOOD INSPECTION	105
METEOROLOGY	97
MIDWIVES ACTS	82
MILK SUPPLY	95, 100
MORTALITY AT CERTAIN AGE PERIODS	31, 32, 37-56
MUNICIPAL WARDS AND REGISTRATION SUB-DISTRICTS	23
NUISANCES	60



## CONTENTS—CONTINUED.

	PAGE
OFFENSIVE TRADES ... ..	60, 68
PATHOLOGICAL EXAMINATIONS ... ..	59, 91, 96
PAVING OF COURTS ... ..	60, 62
PERSONS PER ACRE ... ..	26
PNEUMONIA ... ..	12, 30, 31, 32, 35
POPULATION ... ..	9, 23, 25, 30
PREVENTION AND TREATMENT OF TUBERCULOSIS ... ..	69-81
PREVENTION AND TREATMENT OF VENEREAL DISEASES ... ..	90-93
REGISTRATION SUB-DISTRICTS AND SECTIONS—DESCRIPTION, POPULATION, VITAL STATISTICS, ETC. ... ..	21, 23, 26-28
Do. INFECTIOUS DISEASE NOTIFICATIONS, ETC. ... ..	35
Do. INFANTILE MORTALITY ... ..	26
SALE OF FOOD AND DRUGS ACTS ... ..	94, 95
SANATORIUM TREATMENT ... ..	74, 75
SANITARY ADMINISTRATION ... ..	60-68
SANITARY INSPECTORS' WORK ... ..	60
SEX AND AGE DISTRIBUTION OF POPULATION ... ..	9, 10, 30
SHEFFIELD QUEEN VICTORIA DISTRICT NURSES ... ..	87
SLAUGHTER HOUSES AND MEAT INSPECTION ... ..	60, 105
STILL BIRTHS ... ..	82
SUMMARY OF STATISTICS ... ..	6
SURGICAL TUBERCULOSIS ... ..	79-81
SUNSHINE RECORD ... ..	97
TRADES MORTALITY ... ..	17
TRANSFERABLE DEATHS AND BIRTHS ... ..	36
TUBERCULOSIS DISPENSARY, WORK OF... ..	69-78
TUBERCULOSIS MEDICAL OFFICERS' REPORTS ... ..	69-78
TUBERCULOSIS AND MILK ... ..	100-104
TUBERCULOSIS ... ..	14, 30, 69-78
TUBERCULOSIS INSPECTORS' WORK ... ..	78
TUBERCULOSIS IN LARGE TOWNS ... ..	16
TUBERCULOSIS IN UNHEALTHY SHEFFIELD TRADES ... ..	17
VENEREAL DISEASES ... ..	90-93
VETERINARY INSPECTOR'S REPORT ... ..	98-106
VITAL AND MORTAL STATISTICS ... ..	9, 36
WOMEN INSPECTORS' WORK ... ..	78, 82
WORKSHOP INSPECTION ... ..	67
EPIDEMIC, ENDEMIC, AND INFECTIOUS DISEASES—	
Acute Poliomyelitis ... ..	12, 31, 32, 35
Cerebro-Spinal Fever ... ..	12, 31, 32, 35
Chicken Pox ... ..	38
Diarrhoea and Enteritis ... ..	11, 30
Diphtheria ... ..	11, 30, 31, 32, 34, 35
Dysentery ... ..	12, 31, 32, 34, 35
Encephalitis Lethargica ... ..	12, 31, 32, 35
Enteric Fever ... ..	11, 30, 31, 32, 35
Erysipelas ... ..	31, 32, 35
Gonorrhœa ... ..	90-93
Influenza ... ..	12, 30
Malaria ... ..	12, 31, 32, 35
Measles ... ..	11, 30, 31, 32, 33, 35
Mumps ... ..	37
Ophthalmia Neonatorum ... ..	84
Puerperal Fever ... ..	30, 31, 32, 34, 35, 83
Scarlet Fever ... ..	11, 30, 31, 32, 33, 35
Small Pox ... ..	11, 30, 31, 32, 35
Syphilis ... ..	90-93
Trench Fever ... ..	12
Whooping Cough ... ..	11, 30, 31, 32, 33, 35

# TABLES.

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			PAGE
Table A	...	Censuses 1911 and 1921—Percentage of Sex in Quinquennial Age Groups...	9
Table B	...	Diseases made Notifiable during 1919	12
Table C	...	Pneumonia cases notified and removed to Hospital, 1919-1928	13
Table D	...	Pneumonia Mortality in Sexes	13
Table E	...	Bronchitis Mortality in Sexes	13
Table F	...	Cancer Mortality in Sexes	14
Table G	...	Tuberculosis Mortality in Sexes	14
Table H	...	Tuberculosis in Sheffield and Large Towns, 1919-1928	16
Table I	...	Tuberculosis in Unhealthy Trades, 1924-8...	17
Table J	...	Infant Mortality—Sheffield and England, 20 years	18
Table K	...	Infant Mortality under Certain Causes, 1924-1928	19
Table L	...	Infant Mortality and Mortality 1-5 years of age, 1897-1928	19
Table M	...	Infant Mortality under Specified Causes, 1901 and 1928	20
Table N	...	Birth-Rates and Death-Rates in Sheffield and Large Towns	22
Table I.	...	Population ; Estimated Increase ; and Natural Increase, 25 years	23
Table II.	...	Registration Sub-Districts and Municipal Wards contained therein	23
Table III.	...	Marriages and Marriage-Rates in Sheffield and in England and Wales since 1890	24
Table IV.	...	Population, and Births and Deaths in Sheffield in past years ; also Birth-Rates and Death-Rates in Sheffield and in England and Wales	25
Table V.	...	Registration Sub-Districts and Sections ; Density ; Death-Rates ; also Infantile Mortality for year 1928	26
Table VI.	...	Registration Sub-Districts and Sections : Estimated Population, Acreage, Density ; Birth-Rates, Death-Rates, and Infant Mortality, 1923-1927 and 1928	28
Table VII.	...	Infant Mortality : Nett Deaths from Stated Causes at Various Ages under one year of age	29
Table VIII....	...	Deaths and Death-Rates from all Causes and from Specified Causes, Persons living, Deaths and Death-Rates at Specified Age-periods, etc., during 1928	30
Table IX.	...	Mortality at certain Age-periods, 1924-8	31
Table X.	...	Cases of Infectious Disease notified during each month of the year 1928	31
Table XI.	...	Cases of Infectious Disease notified since 1918, also average 1918-27	32
Table XII.	...	Measles : Mortality in Males and Females under certain Age-periods ; also Mortality-Rates, 1918-1927 and 1928...	33
Table XIII....	...	Scarlet Fever : Notifications, Percentage of Cases removed to Hospital, Deaths, and Percentage Mortality, 1918-1927 and 1928	33
Table XIV.	...	Whooping Cough : Deaths under certain Age periods, 1918-1927 and 1928	33

## TABLES—CONTINUED.

		PAGE
Table XV. ...	Diphtheria : Percentage Mortality in Hospital and Home-treated Cases, 1928 ... ..	34
Table XVI. ...	Sickness from Puerperal Fever and Mortality from Sepsis and other accidents of Childbirth per 1,000 Births, 1919-1928 ...	34
Table XVII. ...	Cases of Infectious Disease notified under certain Age-periods, 1928	34
Table XVIII. ...	Cases of Infectious Disease notified in Registration Sub-Districts and Sections, 1928 ... ..	35
Table XIX....	Vital Statistics of Whole District during 1928 and previous years	36
Table XX. ...	Causes of Death at different periods of life in each Sex, 1928 ...	37-56
Table XXI	City Hospitals. Daily average number of Patients under treatment	57
Table XXII. ...	Scarlet Fever, Diphtheria and Enteric Fever : Percentage of Cases admitted to Hospital, also Death-Rate ... ..	58
Table XXIII. ...	Infectious Disease Patients : Average duration of Hospital treatment	59
Table XXIV. ...	Summary of Work done by Sanitary Inspectors ... ..	60
Table XXV. ...	Houses Certified since 1886 ... ..	62
Table XXVI. ...	Houses Certified each month since Armistice ... ..	62
Table XXVII. ...	Housing, 1928 ... ..	63
Table XXVIII. ...	Summary of Work done by Smoke Inspectors ... ..	65
Table XXIX. ...	Conversion of Privies into Water Closets, 1890-1928 ... ..	66
Table XXX. ...	Factories, Workshops and Workplaces ... ..	67
Table XXXI. ...	Tuberculosis (All Forms) : Notifications, Deaths and Non-notified Deaths under Age Period and in Sexes... ..	69
Table XXXII. ...	Tuberculosis of the Lung : Deaths in relation to Sputum examined	70
Table XXXIII. ...	Tuberculosis of Lung under Age-periods and length of time between Notification and Death ... ..	71
Table XXXIV. ...	Tuberculosis of Lung : Cases examined and Result... ..	73
Table XXXV. ...	Sanatoria : Admissions, Discharges, Deaths, etc. ... ..	75
Table XXXVI. ...	Tuberculosis of Lung : Institutional Treatment, 1928 ... ..	77
Table XXXVII. ...	Tuberculosis—other forms. Notifications, Deaths and Death-Rate, 1928 ... ..	79
Table XXXVIII. ...	Tuberculosis—other forms. New Cases Treated ... ..	79
Table XXXIX. ...	Summary of Work done by Women Inspectors ... ..	82
Table XL. ...	Summary of Work done by Queen Victoria Nurses ... ..	87
Table XLI. ...	Venereal Diseases : Cases treated and cost of treatment since 1919	91
Table XLII. ...	Venereal Diseases : Pathological Examinations since 1919 ...	91
Table XLIII. ...	Venereal Diseases : Clinics and Attendances during 1928 ...	92
Table XLIV. ...	Venereal Diseases : Persons dealt with. Average Attendances at Clinics, 1925-1928 ... ..	93
Table XLV. ...	Sale of Food and Drugs Acts. Analyses 1928 ... ..	94
Table XLVI. ...	Bacteriological Examinations, 1928 ... ..	96
Table XLVII. ...	Meteorology, 1928 ... ..	97



## GENERAL STATISTICS.

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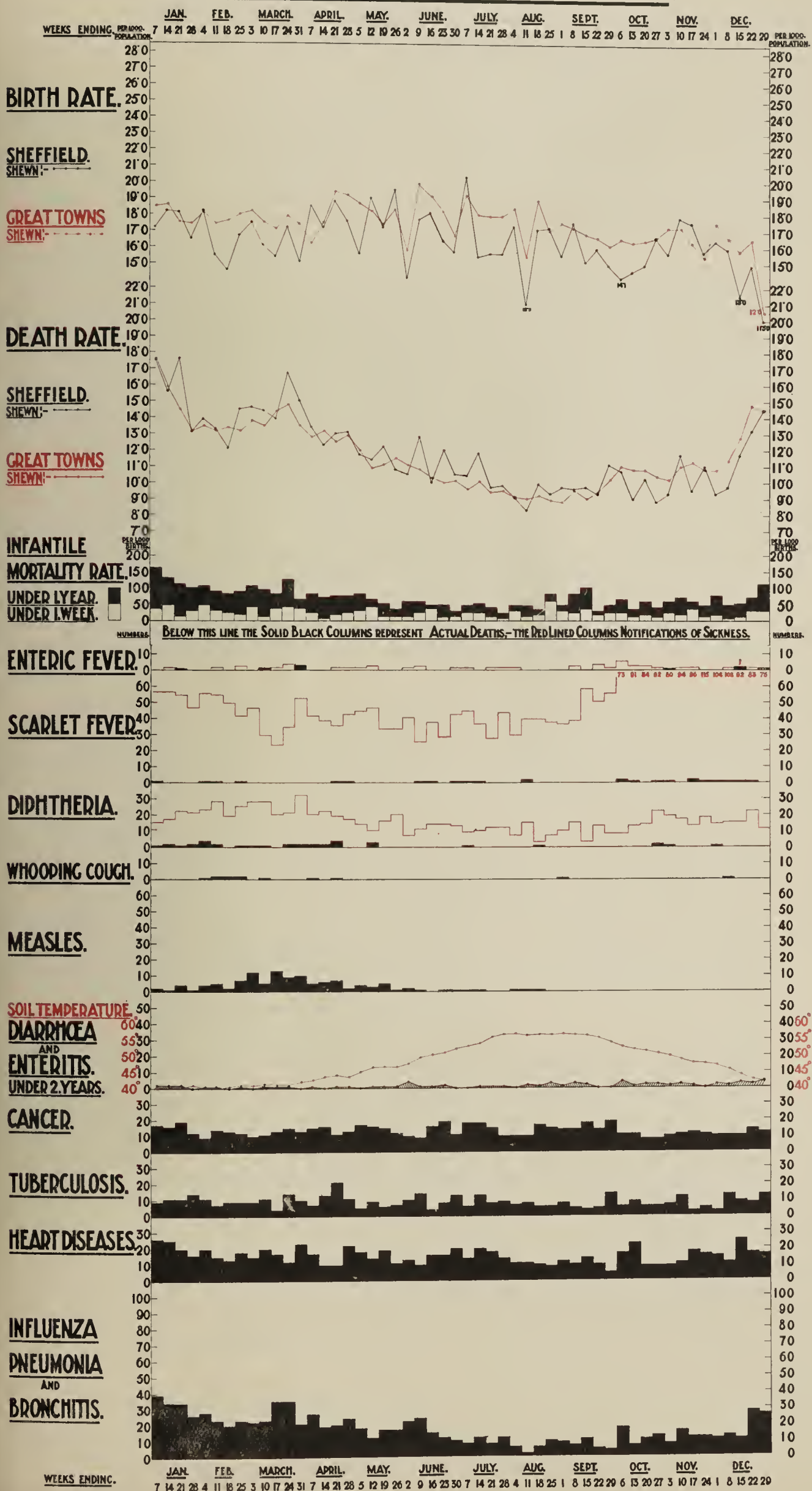
Area (as extended November 9, 1921) .. .. .	31,616 acres.
Population—1928 mean, as estimated by the Registrar General ..	515,400
Number of Structurally Separate Dwellings at Census 1921 (area as extended)	
In Occupation .. .. .	110,228
Not in Occupation .. .. .	2,170
	———— 112,398
Rateable Value (October, 1928) .. .. .	£2,620,155
Sum represented by a Penny Rate (October, 1928) .. .. .	£9,872

## EXTRACTS FROM VITAL STATISTICS OF THE YEAR.

	Total	Males	Females	
Births (Legitimate) ..	8,145 ..	4,153	3,992 ..	} Birth Rate, 16·4
„ (Illegitimate) ..	293 ..	147	146 ..	
Deaths .. ..	6,099 ..	3,226	2,873 ..	Death Rate, 11·8
Number of women dying in, or in consequence of childbirth—from sepsis ..	32			
				from other causes 19
Deaths of Infants under one year of age per 1,000 births :—				
Legitimate ..	71.	Illegitimate ..	133.	Total .. 73
Deaths from Measles (all ages) .. .. .				118
„ Whooping Cough (all ages) .. .. .				12
„ Diarrhoea (under 2 years of age) .. .. .				67

# 1928. CITY OF SHEFFIELD. 1928.

## VITAL AND MORTAL STATISTICS.







TOWN HALL, SHEFFIELD,

AUGUST, 1929.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

MR. CHAIRMAN, LADIES AND GENTLEMEN,

I have the honour to present herewith my Report on the Health of the City during 1928.

As will be seen from the figures embodied in this Report, the result of our work has been satisfactory and encouraging.

The General Death Rate was 11.8 as compared with 12.3 in 1927, and an average for the previous ten years of 13.1. The summer of the year under review was on the whole sunny and fine, and the increasing habit of out-of-door living and escape into the country during week-ends is undoubtedly having an important effect, not merely on Death-rates but on the actual health and vigour of people of both sexes who are living and taking part in the life and activities of their generation. There is an irreducible limit to the reduction in the Death-rate, which we are rapidly approaching. The remarkable decline in both Birth-rate and Death-rate which we have witnessed during these "post-war" years, means that we have now a population of considerably greater average age than we had in the past.

This means that the rate of acceleration in the decline of the Death-rate must inevitably be reduced.

As the population grows older there may even be some progressive rise in the Death-rate in the coming years. This is a possibility that must be faced with equanimity by those responsible for the administration of matters relating to the Public Health. Except in the case of certain scheduled "notifiable infectious diseases," we have no accurate knowledge of the incidence of disease generally on the population, or of what might be called the "Morbidity rate."

I believe, however, that this has been greatly reduced, and I am sure that some considerable share in this reduction may be claimed by the Health Committee as the direct result of their labours in the gradual removing of insanitary conditions and the improvement of the environment in which the majority of our fellow-citizens have to live.

The outstanding feature of the year under review was the passing into Law of the Sheffield Corporation Consolidation Act of 1928. This Act contains a number of "Sanitary" Sections, and Sections dealing with the public health, more or less directly, and all of these newly acquired powers were implemented before the close of the year, with the exception of the Sections dealing with the industrial and other "Tips," which give us power to make By-laws regulating this form of disposal of the residuum of what we regard as modern civilization. This is a problem of great complexity, and much recent scientific research and experiment has been carried out on the subject. Until this experimental work has been thoroughly explored it has been recognised that it would be inadvisable to commit ourselves to By-laws which might shortly become out-of-date.

Our new powers to compel the conversion of trough-closets and waste water-closets to civilised separate pedestal closets, have been taken full advantage of, and I hope these remnants of a bygone conception of sanitation will soon have disappeared from our City as have the privy-middens which we inherited from Victorian times. As will be seen from the Sanitary sections of this Report, the work of replacement of the old insanitary "ash-pit" by Sanitary ash-bins is proceeding rapidly, and I have been able to satisfy myself that this gradual but steady progress in the cleaning up of the unclean portions of the City is having the expected effect in a general improvement, not only in the health but in the "morale" of the citizens. We have again a very large record of back-yards repaved, and I have repeatedly called attention to the importance of this work. The re-paving and cleansing of a back-yard or court is in my experience always an opportunity for the over-worked housekeeper to put her house in order and prevent the introduction of unnecessary and avoidable dirt, and I know from the lips of many over-driven women what a help to them our present policy has been.

Our new powers in connection with the manufacture and distribution of certain food-stuffs such as ice-cream, potted and preserved meat, etc., have already been exercised, and the work done under this heading will be reported on fully in my Report for the current year.

I am,

Your obedient Servant,

FRED. E. WYNNE, B.A., M.B., B.Ch., D.P.H.,

*Medical Officer of Health.*

## VITAL AND MORTAL STATISTICS.

**SPECIAL FEATURES.**—The General Death Rate showed a satisfactory reduction as compared with the previous year. The mortality rate from Tuberculosis was also satisfactorily low. The mortality rate from Cancer was the highest on record, with the exception of 1927. The Infant Mortality rate was the lowest on record.

**AREA.**—The area of the City as extended 9th November, 1921, is 31,616 acres.

**POPULATION.**—The Registrar General's estimate of the population of Sheffield at the middle of 1928 was 515,400. This figure shows a decrease on the previous year's estimate of 9,500, and is 3,839 below the adjusted Census figure of 519,239. The cut appears very drastic, and the Registrar General's explanation will be of interest. It is as follows:—

“ The process of estimating local populations is primarily that of distributing the total population of England and Wales amongst the 1,800 odd Boroughs, Urban Districts and Rural Districts which together made up the whole country. The estimate for an individual area is not the product of an isolated enquiry limited in its scope to purely local indications; it is definitely related to the estimates of all the other constituent areas of the country, and must take into account population movements which are complementary and reciprocal as between the area in question and a large number of contiguous or adjacent areas. . . . Each annual process of estimation involves, in a sense, a fresh review of the whole period which has elapsed since the previous census, advantage being taken of any new material which has come to light to promote the progressive correction of the figures. In the present instance, in view of the special purposes which the estimates are required to serve, special efforts have been made to review the whole period for the purpose of eliminating any imperfections in previous estimates.”

With regard to the figures showing the distribution of population of Registration Sub-Districts and Sections, which appear in Table V., the estimates have been based upon the 1921 Census, with additions in respect of new houses erected in these areas since 1921, and a pro rata reduction to bring the total down to the new estimate of the Registrar General.

**TABLE A.**—*Censuses 1911 and 1921. Percentage of each sex in quinquennial age groups.*

Ages	1911		1921	
	Percentages		Percentages	
	Males	Females	Males	Females
0—4	12·0	11·8	—10·0	—9·3
5—9	11·0	10·7	—10·1	—9·8
10—14	10·0	9·9	+10·4	+10·3
15—19	9·2	9·4	+9·4	+9·7
20—24	8·2	8·6	—8·0	+8·9
25—29	8·7	8·8	—7·7	—8·2
30—34	8·6	8·3	—7·1	—7·3
35—39	7·9	7·4	—7·4	—7·3
40—44	6·4	6·0	+7·2	+6·9
45—49	5·2	5·0	+6·7	+6·1
50—54	4·1	4·1	+5·3	+4·8
55—59	3·2	3·2	+4·0	+3·7
60—64	2·4	2·5	+2·8	+2·9
65—69	1·6	1·9	+2·0	+2·2
70—74	0·9	1·2	+1·1	+1·4
75—79	0·4	0·6	+0·6	+0·8
80—84	0·2	0·3	=0·2	=0·3
85—89	0·0	0·1	=0·0	=0·1
90—94	0·0	0·0	=0·0	=0·0
95 and over	0·0	0·0	=0·0	=0·0

The signs +, —, and = show the comparison with 1911 figures—higher, lower, or equal.



*Sex and Age Distribution.*—The preceding Table, which is based upon 1921 Census reports, is introduced in order to show the age and sex distribution of the population of the City and the change which took place during the 10 years between 1911 and 1921.

MARRIAGES.—The marriage rate was 15.8, which was 0.1 lower than the rate for 1927. It was pointed out in the Annual Report for 1921 that for the first time on record the marriage rate was less in Sheffield than in England and Wales as a whole. The disparity was further accentuated in 1922, when the rate fell to 14.4 as compared with 15.7 for England and Wales. Sheffield's rate for 1922, moreover, was the lowest recorded for the City, whilst that for England had been lower than in 1922 in 17 of the 33 years shown in the Table. The rate for 1923 was the same for Sheffield as for England and Wales; in 1924-1926 it was slightly below that for England and Wales; in 1927 it was 0.2 higher; and in 1928 it was 0.5 higher than that for England and Wales.

Table III. gives marriages and rates for Sheffield and for England since 1890.

BIRTHS.—The number of births registered during the year was 8,586 and the transferable births numbered 71 inwards and 219 outwards. The number of births allocated to Sheffield, therefore, was 8,438, which was less than in the preceding year by 88. The annual birth rate was 16.4 per 1,000 persons living. The average rate for the previous ten years was 20.2. Owing to the doubt about accuracy of population estimates for the war years, the actual number of births is given in the following Table for the years 1918 onward, together with the birth rates:—

Year		Births	Rate per 1,000
1918	.....	10,746	20.6
1919	.....	10,353	21.0
1920	.....	13,130	26.6
1921	.....	11,907	23.8
1922	.....	10,804	20.7
1923	.....	10,195	19.4
1924	.....	9,712	18.5
1925	.....	9,321	17.7
1926	.....	9,013	17.2
1927	.....	8,526	16.2
Average 1918-27	.....	10,387	20.2
1928	.....	8,438	16.4

The birth-rate for 1928 is 3.8 lower than the average for the last decade, and with the exception of 1927 is the lowest ever recorded in Sheffield.

DEATHS.—The number of deaths of Sheffield residents during the year was 6,099 (3,226 male, 2,873 female), making a death rate of 11.83 per 1,000 living, which is 0.43 below 1927. The average death rate for the decade 1918-1927 was 13.1. For the reason stated above, the actual number of deaths are given in the following Table in addition to the rate—

Year		Deaths	Rate per 1,000
1918	.....	9,732	20.9
1919	.....	6,564	13.9
1920	.....	6,622	13.4
1921	.....	6,284	12.5
1922	.....	6,097	11.7
1923	.....	6,012	11.5
1924	.....	6,110	11.6
1925	.....	6,078	11.5
1926	.....	5,927	11.3
1927	.....	6,436	12.3
Average 1918-27	.....	6,586	13.1
1928	.....	6,099	11.8

A comparison of the death rate of Sheffield with that of England and Wales in quinquennia is given in the following Table. It will be noted that for the periods 1921-25

and 1926-28 Sheffield's rate was below that for England and Wales. The lower mortality in Sheffield from Diphtheria, Influenza and Cancer accounts for this to some extent.

Quinquennial Periods				Mean Annual Mortality Rate per 1,000 of the population		
				Sheffield		England
1871-1875	...	...	...	26.8	.....	22.0
1876-1880	...	...	...	24.2	.....	20.8
1881-1885	...	...	...	21.6	.....	19.4
1886-1890	...	...	...	22.1	.....	18.9
1891-1895	...	...	...	20.9	.....	18.7
1896-1900	...	...	...	20.6	.....	17.7
1901-1905	...	...	...	18.2	.....	16.1
1906-1910	...	...	...	16.4	.....	14.7
1911-1915	...	...	...	15.9	.....	14.3
1916-1920	...	...	...	15.7	.....	14.4
1921-1925	...	...	...	11.8	.....	12.2
1926-1928 (3 yrs.)	...	...	...	11.8	.....	11.9

**SMALL-POX.**—There were 61 cases of Small-Pox notified during the year, all of whom recovered.

**MEASLES.**—The number of cases notified voluntarily during 1928 was 86, 43 of which were removed to the City Hospital, Lodge Moor.

The mortality rate for the year was 0.23, 0.19 higher than the rate for 1927. The average rate for the five years 1923-27 was 0.10 per annum.

**SCARLET FEVER.**—The death rate from Scarlet Fever was 0.05 per 1,000 of the population, which has to be compared with an average annual rate of 0.02 for the quinquennium 1923-27; and the attack rate was 5.45 per 1,000, as against 3.34 for the quinquennium 1923-1927.

**DIPHTHERIA.**—The death rate from Diphtheria was 0.07 per 1,000 of the population. This has to be compared with an average of 0.06 during the quinquennium 1923-1927. The attack rate during 1928 was 1.60 as compared with 1.65 for 1927 and 1.43 for the quinquennium 1923-27.

**WHOOPIING COUGH.**—The mortality from this disease was at the rate of 0.02 per 1,000 living. The average for the quinquennium 1923-1927 was 0.16.

**TYPHOID FEVER.**—The death rate from Typhoid Fever gradually declined from 0.09 in 1912 to 0.002 in 1919, and in 1920 not a single death was attributed to this disease. In 1921, however, there were six deaths, giving a rate of 0.012; in 1922, four deaths, giving a rate of 0.008; in 1923 eight, giving a rate of 0.015; in 1924 ten, giving a rate of 0.019; in 1925 eight, giving a rate of 0.015; in 1926 five, giving a rate of 0.010; in 1927 eleven, giving a rate of 0.021; and in 1928 ten, giving a rate of 0.019 per 1,000 living.

The number of typhoid cases notified during the year 1928 was 49, giving an attack rate of 0.095 per 1,000 living, which has to be compared with an average for the quinquennium 1923-27 of 0.083.

At one time we looked forward with absolute certainty to the increase of Typhoid Fever in the Autumn, but since 1914 there has been no autumnal increase in the prevalence of Typhoid Fever.

**DIARRHŒA AND ENTERITIS, UNDER TWO YEARS OF AGE.**—The death rate among infants under two from Diarrhœa and Enteritis during 1928 was 0.13 per 1,000 persons living. The death rates in recent years have been as follows:—0.13 in 1927, 0.24 in 1926, 0.16 in 1925, 0.17 in 1924, 0.24 in 1923, 0.15 in 1922, and 0.46 in 1921.

The great improvement in the prevalence of Diarrhœa can only be attributed to the greater attention given to Child Welfare, the activities of the Women Inspectors, especially their educational work, and the large substitution of Dried Milk for fluid milk; the measures taken for the prevention of fly breeding, and instructions to the public as to the danger of flies, the abolition of privy middens in the congested parts of the town, and the campaign against unpaved yards.

CEREBRO-SPINAL FEVER.—During the year there were five notified cases of Cerebro-Spinal Fever, with two deaths.

ACUTE POLIOMYELITIS.—Twelve cases of Acute Poliomyelitis or Polioencephalitis were notified as against 18 in 1927, 6 in 1926, 16 in 1925, 53 in 1924, one in 1923, and 20 in 1922. Two deaths were registered in 1928.

**TABLE B.**—*Diseases made notifiable during 1919.*

	CASES NOTIFIED									
	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Encephalitis Lethargica ...	7	17	14	8	9	337	54	41	24	18
Pneumonia—Acute Primary and Acute Influenzal ...	830	1759	1275	2367	2832	3345	3219	2643	3154	2693
Trench Fever ...	8	...	...	...	...	...	...	...	...	...
Dysentery ...	5	2	2	1	2	1	1	...	...	1
Malaria ...	78	21	13	7	4	1	2	2	4	1

All the notified cases of Trench Fever, Dysentery, and Malaria were contracted abroad, with the exception that in the case of two Malaria patients notified in 1923 there was an element of doubt; both, however, had served with H.M. Forces abroad.

ENCEPHALITIS LETHARGICA.—As mentioned in the 1924 report, that year was unfortunately noteworthy for a very severe outbreak of Encephalitis Lethargica. The first case was notified on January 14th, and the total number of notifications, in which the diagnosis was, as far as possible, confirmed, was 301. The number of deaths was 40, giving a fatality rate of 13 per cent. 54 cases were notified during 1925, and the deaths registered totalled 21, a fatality rate of 39 per cent. 41 cases were notified during 1926, and 18 deaths were registered, a fatality rate of 44 per cent. 24 cases were notified during 1927 and 19 deaths were registered, a fatality rate of 79 per cent.; and during 1928, 18 cases were notified and 10 deaths were registered, a fatality of 56 per cent.

INFLUENZA.—It will be remembered that the prevalence of Influenza was world-wide in 1918. All parts of the country have been visited by minor epidemics in each year since then. Below are set out the mortality rates per 1,000 living for the years 1918 onward in Sheffield and in the whole country.

	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Sheffield ...	4.55	1.10	0.86	0.47	0.23	0.51	0.35	0.23	0.24	0.48	0.17
England and Wales	3.13	1.22	0.28	0.24	0.56	0.22	0.49	0.33	0.23	0.57	0.19

PNEUMONIA.—It has been the practice since the beginning of 1922 until recently to draw the attention of the medical attendant to failure to notify whenever an unnotified case of Pneumonia has appeared in the death returns. This has resulted in practically every case of fatal Pneumonia being notified prior to death, and has made the incidence of Pneumonia in Sheffield apparently excessive as compared with other towns.

Every case notified and treated at home is visited by the Queen's nurses.

The percentage of cases removed to hospital during 1928 was 12.2.



The following table shows the number and the percentage of cases removed to the City Hospital in each year since 1919, when the disease was made compulsorily notifiable.—

**TABLE C.—Pneumonia.—Cases notified removed to City Hospital, and percentage removed.**  
Years 1919 to 1928.

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Cases Notified ... ..	842	1759	1275	2367	2832	3347	3219	2643	3154	2693
Cases removed to City Hospital ... ..	196	518	526	343	452	578	562	466	357	328
Percentage of Cases removed	23·3	29·4	41·3	14·5	16·0	17·3	17·5	17·6	11·3	12·2

Military cases are included in the above figures.

Particulars are given below with regard to mortality from Pneumonia in males and females during 1928 and the previous five years. These figures show that there is no real excess of pneumonia in the City although slightly higher than those for England.

**TABLE D.—Pneumonia Mortality.**

Year	Deaths			Rate per 1,000	Rate per 1,000 England and Wales
	Males	Females	Total		
1923	317	217	534	1·02	0·87
1924	357	222	579	1·10	1·00
1925	347	236	583	1·11	0·95
1926	333	212	545	1·04	0·83
1927	410	255	665	1·27	0·95
Average for 5 years	353	228	581	1·11	0·92
1928	334	205	539	1·05	—

**BRONCHITIS.**—The mortality in the sexes during 1928 and the quinquennium 1923-27 is set out in the table below. The figures compare favourably with those for England.

**TABLE E.—Bronchitis Mortality.**

Year	Deaths			Rate per 1,000	Rate per 1,000 England and Wales
	Males	Females	Total		
1923	235	220	455	0·87	0·85
1924	241	239	480	0·91	0·97
1925	242	207	449	0·85	0·91
1926	201	157	358	0·68	0·77
1927	183	217	400	0·76	0·84
Average for 5 years	220	208	428	0·81	0·87
1928	162	124	286	0·56	—

CANCER.—The mortality from Cancer in the sexes during 1928 and the previous five years is set out below :—

**TABLE F.—Cancer Mortality.**

Year	Deaths			Rate per 1,000
	Males	Females	Totals	
1923	296	325	621	1·19
1924	339	314	653	1·24
1925	361	336	697	1·32
1926	316	306	622	1·19
1927	392	336	728	1·39
Average for 5 years	341	323	664	1·26
1928	337	369	706	1·37

TUBERCULOUS DISEASES.—The death rate from Tuberculous Diseases declined steadily from 1901 to 1910, but during the next four years there was a setback in the decline ; and during the years of the War there was a decided tendency to increase. There was again a marked decline in 1919, and the improvement has been maintained.

The death rates from all Tuberculous Diseases during 1928 and the previous 20 years were as follows :—

1908	...	...	1·78	1915	...	...	1·78	1922	...	...	1·22
1909	...	...	1·57	1916	...	...	1·73	1923	...	...	1·03
1910	...	...	1·39	1917	...	...	1·82	1924	...	...	1·02
1911	...	...	1·59	1918	...	...	1·84	1925	...	...	0·99
1912	...	...	1·67	1919	...	...	1·28	1926	...	...	0·93
1913	...	...	1·64	1920	...	...	1·19	1927	...	...	0·89
1914	...	...	1·68	1921	...	...	1·24	1928	...	...	0·94

The deaths from Tuberculosis of the Lung alone gave a rate of 0·75 per 1,000 living during 1928. The average for the quinquennium 1923-1927 was 0·78.

The following shows sex mortality during 1928 and the previous 10 years :—

**TABLE G.—Tuberculosis Mortality in Sexes.**

Year	Tuberculosis Deaths						Total Deaths
	Respiratory		Other Forms		All Forms		
	Males	Females	Males	Females	Males	Females	
1918	409	254	115	87	524	341	865
1919	286	186	71	56	357	242	599
1920	293	169	54	74	347	243	590
1921	307	193	64	55	371	248	619
1922	349	188	50	49	399	237	636
1923	265	183	50	41	315	224	539
1924	286	145	60	46	346	191	537
1925	261	156	57	47	318	203	521
1926	243	147	49	46	292	193	485
1927	253	116	39	60	292	176	468
1928	255	129	55	43	310	172	482

The notifications of Tuberculosis of Lung since 1911, the year of opening the Tuberculosis Dispensary, were as follows:—

1911	...	...	...	836 cases.	1920	...	...	...	1139 cases.
1912	...	...	...	981 „	1921	...	...	...	1255 „
1913	...	...	...	1033 „	1922	...	...	...	1312 „
1914	...	...	...	948 „	1923	...	...	...	1414 „
1915	...	...	...	1219 „	1924	...	...	...	1464 „
1916	...	...	...	1351 „	1925	...	...	...	1361 „
1917	...	...	...	1544 „	1926	...	...	...	1600 „
1918	...	...	...	1472 „	1927	...	...	...	1761 „
1919	...	...	...	1001 „	1928	...	...	...	1820 „

The notifications of Tuberculosis of organs other than the lungs since 1914—the first full year after the commencement of notification—were as follows:—

1914	...	...	...	458 cases.	1922	...	...	...	275 cases.
1915	...	...	...	373 „	1923	...	...	...	308 „
1916	...	...	...	433 „	1924	...	...	...	341 „
1917	...	...	...	492 „	1925	...	...	...	292 „
1918	...	...	...	387 „	1926	...	...	...	237 „
1919	...	...	...	234 „	1927	...	...	...	207 „
1920	...	...	...	253 „	1928	...	...	...	158 „
1921	...	...	...	254 „					

Table H which follows, gives a comparison of the death rates from All Forms of Tuberculosis and Respiratory Tuberculosis in England and Wales and the 17 other large towns, for the years 1919 to 1928. The Chart which accompanies the Table shows very graphically the rise during the war years and the subsequent fall. Sheffield's improved position is clearly indicated.

It will be seen that in 1928 Sheffield's death rate from Tuberculosis was less than that of any other town with the exception of Plymouth, very considerably less than most of them, and, as regards Respiratory Tuberculosis, actually less than the death rate for England and Wales.

These results are particularly gratifying in view of the nature of the principal industries of Sheffield. The great improvement in the conditions under which various classes of grinding and abrasive industries are now carried out, and the detection and treatment of early cases under the Silicosis Regulations, must be an important factor in the remarkable reduction of mortality which has occurred since 1916. Nevertheless, the conditions under which many of the men in the cutlery trade are employed are still profoundly unsatisfactory. They will never, in my opinion, be as they should be until the present antiquated organisation of this trade is reformed, and the system of giving out work to the lessees of little, dark, insanitary “wheels” is abandoned in favour of large and economically-organised factories, where proper equipment for ventilation, etc., would be provided and adequate supervision made possible.

It is at present impossible to prevent the practice of spitting in these places; ventilation ducts for the removal of dust are not infrequently blocked up to prevent “draughts,” and the “dry-racing” of grindstones is sometimes practised in contravention of the regulations. The system of having three stones run “tandem-fashion” means that men employed on the hindmost stones are often working almost in the dark, which promotes uncleanness and lowers the individuals' resistance to respiratory and other diseases.

The large amount of unemployment which still prevails in these trades, although in other respects so regrettable, has probably had some effect in reducing the amount of Tuberculosis, as a large number of grinders and others employed in the dangerous sections of these trades are not at present exposed to the risk of damage to the lungs which occurs while they are at work.



**TABLE H.**—*Tuberculosis, All Forms, and Tuberculosis of the Respiratory System. Mortality per Million Living. England and Wales and Towns over 200,000 Population. Years 1919-1928.*

Towns	1919		1920		1921		1922		1923		1924		1925		1926		1927		1928	
	All Forms	Respy.	All Forms	Respy.	All Forms	Respy.	All Forms	Respy.	All Forms	Respy.	All Forms	Respy.	All Forms	Respy.	All Forms	Respy.	All Forms	Respy.	All Forms	Respy.
England & Wales	1258	996	1131	889	1127	884	1121	889	1062	836	1058	841	1038	833	961	771	972	791	928	755
Birmingham ...	1358	1162	1093	918	1115	939	1108	931	1067	885	1109	943	1144	953	1097	948	1078	911	988	860
Liverpool ...	1777	1447	1722	1399	1676	1268	1655	1321	1608	1251	1526	1242	1514	1210	1486	1224	1383	1146	1385	1179
Manchester ...	1627	1331	1492	1218	1653	1319	1602	1275	1534	1245	1506	1205	1577	1330	1439	1211	1410	1189	1292	1098
<b>SHEFFIELD</b> ...	<b>1275</b>	<b>1007</b>	<b>1181</b>	<b>928</b>	<b>1228</b>	<b>974</b>	<b>1209</b>	<b>1001</b>	<b>1023</b>	<b>851</b>	<b>1027</b>	<b>813</b>	<b>993</b>	<b>793</b>	<b>925</b>	<b>740</b>	<b>886</b>	<b>699</b>	<b>935</b>	<b>745</b>
Leeds ...	1683	1291	1538	1211	1383	1091	1416	1129	1371	1068	1410	1088	1294	1068	1241	991	1166	965	1142	954
Bristol ...	1340	1102	1215	985	1100	935	1323	1060	1209	949	1137	917	1200	946	1158	952	1219	1037	1014	876
West Ham ...	1462	1167	1303	1091	1274	1013	1193	957	1177	951	1191	970	1174	970	1143	953	1107	945	1121	942
Hull ...	1523	1087	1317	984	1443	1086	1412	1017	1233	983	1354	1071	1271	1026	1205	1005	1237	971	1206	1011
Bradford ...	1358	1128	1125	932	1192	924	1033	779	1069	839	1072	858	1010	806	1029	828	1003	791	998	821
Newcastle ...	1650	1240	1814	1379	1634	1246	1499	1158	1476	1099	1459	1119	1561	1209	1489	1170	1390	1106	1321	1048
Nottingham ...	1514	1235	1160	879	1152	901	1247	993	1181	899	1184	943	1208	1009	1086	866	1155	945	1095	949
Stoke-on-Trent	1546	1203	1479	1099	1515	1197	1380	1096	1228	978	1158	896	1323	986	1332	994	1394	1080	1151	933
Portsmouth ...	1268	987	1156	929	1176	906	1175	909	1045	854	1228	1000	1121	867	989	790	1004	784	947	744
Salford ...	1644	1304	1660	1360	1644	1355	1662	1359	1627	1353	1588	1284	1663	1398	1516	1261	1708	1401	1416	1213
Leicester ...	1457	1212	1463	1179	1467	1181	1541	1286	1439	1222	1493	1208	1599	1322	1382	1163	1457	1208	1248	1077
Cardiff ...	1639	1296	1605	1336	1534	1238	1568	1287	1693	1340	1521	1247	1515	1308	1263	1077	1543	1277	1211	1009
Plymouth ...	1665	1286	1238	990	1301	1051	1352	1093	1321	1067	1275	1032	1192	953	1132	918	1162	959	901	750
Croydon ...	1254	1064	1042	858	1018	856	1128	972	1055	843	974	806	923	753	1010	821	968	794	959	777
<i>Averages for Towns</i>	<i>1502</i>	<i>1197</i>	<i>1367</i>	<i>1093</i>	<i>1361</i>	<i>1082</i>	<i>1361</i>	<i>1090</i>	<i>1298</i>	<i>1038</i>	<i>1290</i>	<i>1036</i>	<i>1293</i>	<i>1050</i>	<i>1218</i>	<i>995</i>	<i>1239</i>	<i>1012</i>	<i>1129</i>	<i>944</i>

The whole of the rates figures have been taken from the Registrar General's "Statistical Review," with the exception of those for 1928, which have been obtained from the respective towns.

# TUBERCULOSIS.

**MORTALITY PER MILLION LIVING IN  
SHEFFIELD AND THE GREAT TOWNS WITH  
200,000 POPULATION, ALSO ENGLAND AND WALES,  
DURING THE YEARS  
1913 TO 1928**

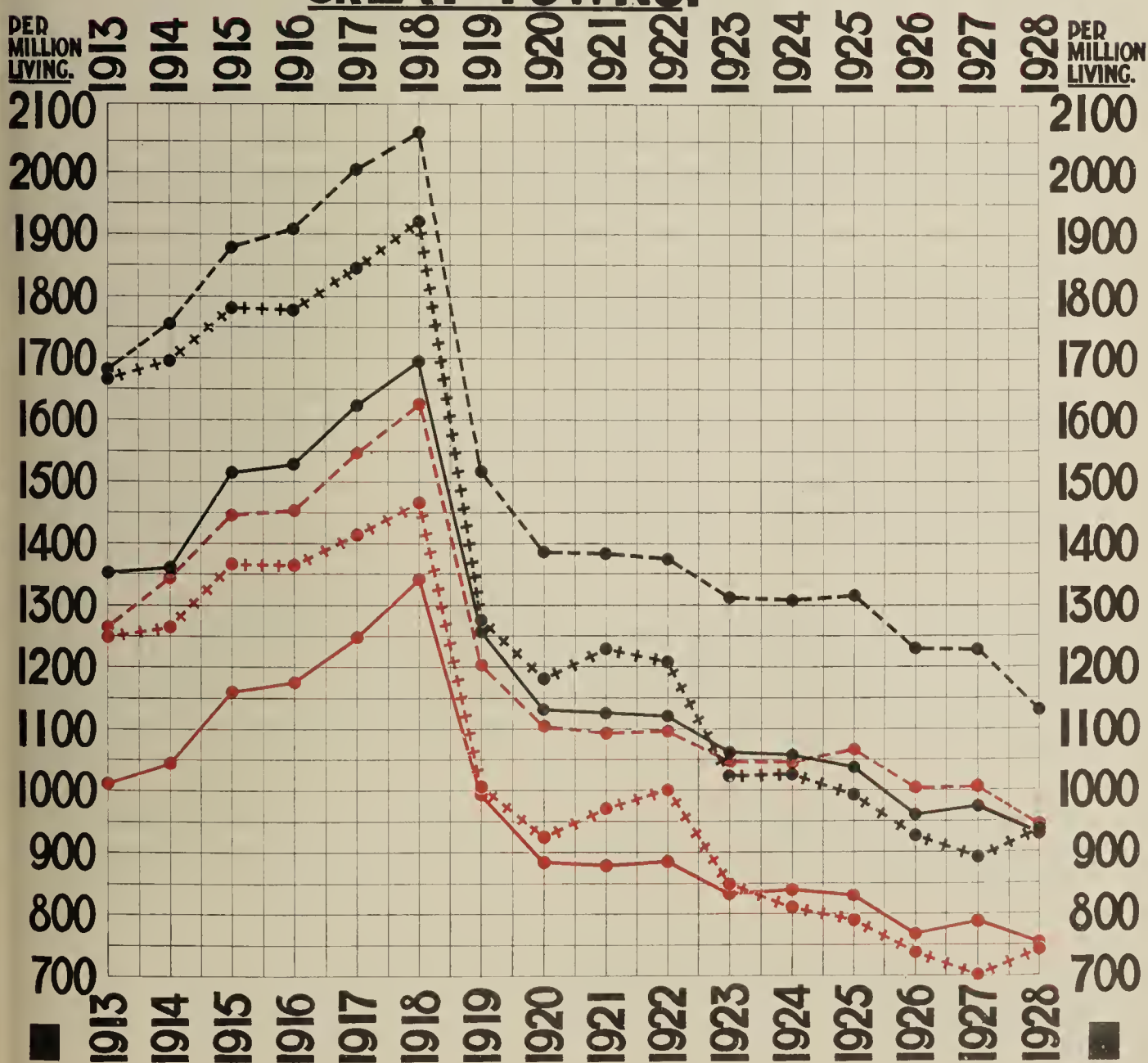
**TUBERCULOSIS - ALL FORMS SHEWN-BLACK.**

**TUBERCULOSIS-OF THE LUNG SHEWN-RED.**

**SHEFFIELD.+++++●●●●●●●●●●**

**ENGLAND AND WALES.———●———**

**GREAT TOWNS.-----●-----**







**TABLE I.**—*Pulmonary Tuberculosis in Sheffield.*—*Mortality Rates among Workers in Unhealthy Trades, and among All Persons over 15 (for comparison), during the years 1924, 1925, 1926, 1927 and 1928.*

Trades	Workers employed over 12 years of age (Census 1921).	Mortality from Respiratory Tuberculosis.									
		Number of Deaths					Rate per 1,000				
		1924	1925	1926	1927	1928	1924	1925	1926	1927	1928
Grinders ... ..	4,893	35	31	28	38	30	7.2	6.3	5.7	7.8	6.1
Cutlers ... ..	3,940	11	11	12	10	4	2.8	2.8	3.0	2.5	1.0
Filecutters ... ..	2,011	7	2	3	2	...	3.5	1.0	1.5	1.0	...
All persons over 15 years of age in Sheffield ...	358,306	414	398	371	353	372	1.1	1.1	1.0	1.0	1.0

Figures were taken out for mortality of Grinders, Cutlers, and Filecutters over 18 years of age in 10 years, 1901 to 1910, and the Pulmonary Tuberculosis rates were as follows:—

Grinders, 14.8; Cutlers, 5.8; and Filecutters, 4.9 per 1,000 per annum.

Among the factors in the decline of Tuberculosis in Sheffield, perhaps the most important is the work of your Tuberculosis Officer, Dr. Rennie, and his staff, at the Hospitals and Dispensary. At the latter institution especially, an enormous number of cases of Tuberculosis suspects and contacts are kept under direct and continuous supervision.

The system adopted here differs in some respects from that recommended in the Astor Report and adopted by the Ministry of Health. But under the peculiar circumstances of Sheffield the methods which have been evolved appear to have justified themselves.

Other forms of Tuberculosis are treated by Dr. C. Lee Pattison at the admirably equipped King Edward VII. Sanatorium, and also as out-patients at the Tuberculosis Dispensary, Queen's Road. The results obtained at these institutions are responsible for the saving of many young lives and the prevention of much otherwise inevitable crippledom, and have a marked influence on the reduction of our death rate. A detailed report on this work is given by Dr. Pattison under the heading of Prevention and Treatment of Tuberculosis.

**INFANT MORTALITY.**—The number of deaths of Infants under one year of age was 619, as compared with 774 in 1927, 712 in 1926, 788 in 1925, 871 in 1924, 915 in 1923, 884 in 1922, and 1,173 in 1921. The number of births registered in 1928 was 8,438. Infant Mortality is usually recorded as the number of deaths occurring under the age of twelve months per 1,000 births registered during the same period, and the rate for 1928 calculated in this manner is 73 per 1,000, 18 per 1,000 lower than in 1927, and constitutes a new low record.

Deaths of infants occurring before the first month of life was reached numbered 323. This gives a rate of 38 per 1,000 births registered, or what is known as the neo-natal mortality. The neo-natal mortality for 1927 was 40; for 1926, 23; for 1925, 37; for 1924, 44; for 1923, 39; for 1922, 39; and for 1921, 41.

The following Table gives alongside the Infant Mortality rates for England and for Sheffield during the past 20 years. The noteworthy feature of the comparison is that the rate for Sheffield in recent years has usually more nearly approached the English rate than it did in the first decade of the century.

TABLE J.—*Infant Mortality.*

Year	Infant Mortality Sheffield	Mortality England	Excess over English Rate	Year	Infant Mortality Sheffield	Mortality England	Excess over English Rate
1909	119	109	10	1919	96	89	7
1910	127	105	22	1920	104	80	24
1911	141	130	11	1921	99	83	16
1912	107	95	12	1922	82	77	5
1913	128	108	20	1923	90	69	21
1914	132	105	27	1924	90	75	15
1915	133	110	23	1925	85	75	10
1916	109	91	18	1926	79	70	9
1917	104	96	8	1927	91	70	21
1918	128	97	31	1928	73	65	8

If the principal causes of deaths of infants, as set forth in the following Table, be examined, it will be seen that the usual fluctuations in the fatality of some of the more common infectious diseases took place. For these annual fluctuations we are at present unable to account, and we are largely powerless to control them. The year's experience, however, proves yet again that as causes of mortality among young children, Scarlet Fever and Diphtheria have become negligible as compared with Measles and Whooping-cough. This fact has long been recognised by the medical profession, but the public persists in believing that Measles and Whooping-cough, the deadliest scourges of infancy, may be regarded as trivial complaints. Scarlet Fever and Diphtheria, on the other hand, still inspire all the horror which was justified a generation ago, but which modern treatment and other factors have rendered unnecessary.

This failure to appreciate facts is a serious handicap to preventive work. The control of Measles is especially difficult owing to the fact that it is infectious for some days before the rash appears, and of Whooping-cough because of the insidious nature of its onset. But our figures prove, and have proved for years, that the isolation of these diseases is more urgent than that of Scarlet Fever and Diphtheria. Most cases of the former could be successfully treated at home, hospital beds being retained for severe cases requiring institutional treatment, and the majority of beds now retained for their use being devoted to Measles and severe cases of Whooping-cough. The infectious stage of Measles is so much shorter than that of Scarlet Fever, that a much larger number of cases could be isolated and protected from complications, with a proportionate saving of young lives.

Taking Influenza, Bronchitis and Pneumonia as one group, there was a steady decline in the number of deaths in recent years until 1927, when the number rose considerably higher. The 1928 total, however, was below the 1926 figure.

The differentiation between Pneumonia and Bronchitis in infants is not of great importance as the terms "Capillary Bronchitis" and "Broncho-pneumonia," at this age, are practically interchangeable.

Deaths from Diarrhoea and Enteritis fell from 105 in 1923 to 67 in 1924, but rose to 109 in 1926. There was a fall in 1927 to 61, and a further fall in 1928 to 56. Once more the relationship between these diseases and the sub-soil (four-foot) temperature, which used to be so constant, failed to re-appear.

Among the most important factors in bringing about this amazing decline in mortality from these causes, I think we must place the wide substitution of dried milk for so-called fresh but highly-contaminated milk, and the educative work carried out by the medical staff and the women inspectors in connection with the child-welfare centres.

Until the methods of the farmers and others concerned in the milk industry have been revolutionised, and consumers have been provided with facilities for storage and education in the handling of milk, I am definitely of the opinion that liquid milk should be banished from the dietry of infants.

The amount of dried milk distributed in each of the last nine years has been as follow :—1920, 223,901 lbs.; 1921, 213,578 lbs.; 1922, 172,138 lbs.; 1923, 139,774 lbs.; 1924, 158,542 lbs.; 1925, 152,019 lbs.; 1926, 139,731 lbs.; 1927, 123,460 lbs.; and 1928, 120,748 lbs. As against the drop in the sale of dried milk there has been an increase in the sale of other foods, 28,765 lbs. having been retailed during 1928, as against 28,088 lbs. in 1927, 16,871 lbs. in 1926, and 12,105 lbs. in 1925.



In the following table particulars are given of Infant Mortality from stated causes under one year of age, during the past five years.

**TABLE K.**—*Infant Mortality in 1924, 1925, 1926, 1927 and 1928.*

Cause of Death	Number of Deaths				
	1924	1925	1926	1927	1928
Measles ... ..	35	7	16	6	23
Scarlet Fever ... ..	...	...	...	1	...
Whooping Cough ... ..	13	52	9	56	4
Diphtheria ... ..	2	2	7	1	4
Tuberculous Meningitis ... ..	3	3	5	7	7
Abdominal Tuberculosis ... ..	2	2	...	1	...
Other Tuberculous Diseases ... ..	2	1	5	...	1
Influenza ... ..	9	7	5	17	4
Bronchitis ... ..	69	69	42	59	29
Pneumonia (all forms)... ..	134	127	108	136	98
Diarrhoea and Enteritis ... ..	67	74	109	61	56
Syphilis ... ..	13	12	2	6	8
Congenital Malformation ... ..	42	40	35	46	42
Premature Birth ... ..	248	186	195	184	186
Atrophy, Debility, and Marasmus ... ..	68	46	54	52	44
Other Causes ... ..	164	160	120	141	113
Totals ... ..	871	788	712	774	619

1928 Infant Mortality Rate :—Legitimate, 71 ; Illegitimate, 133.

As it has been suggested that the reduction of Infant Mortality tends merely to postpone the deaths of feeble and degenerate infants from the first year to a slightly later period, thus prolonging the suffering of the child and increasing the burden of those responsible for it, I have had two tables prepared in order to ascertain whether this is true of our work in Sheffield.

The following Table shows the Infant Mortality Rate, the Mortality Rate from 1 to 5 years, and the General Death Rate in Sheffield for each fifth year from 1897. This covers the period during which our Child Welfare work has been developed.

**TABLE L.**—*Infant Mortality Rate; Mortality Rate per 1,000 Births amongst Children over 1 and under 5 years of age and General Death Rate each fifth year since 1897.*

Year	Infant Mortality Rate	Mortality Rate per 1,000 Births ages 1-5 years	General Death Rate
1897	196	94	21·2
1902	150	62	16·9
1907	145	87	17·1
1912	107	60	14·3
1917	104	61	14·6
1922	82	44	11·7
1927	91	50	12·3
1928	73	41	11·8
Percentage of 1897 figures ...	37%	44%	56%

It will be seen that while the Infant Mortality Rate for 1928 has fallen 37 per cent. of that for 1897, the Death Rate for the age period 1 to 5 years has also fallen to 44 per cent. of that for 1897.

The following Table compares the Infantile Death Rate from three principal groups of causes in 1928 and in 1901.

The first group comprises the death rate from prematurity, debility, etc., that is, congenital causes. This group consists almost entirely of the deaths of the weakly or degenerate infants with a bad heredity, whose elimination from the racial point of view is desirable. The other two groups comprise deaths from diarrhœal and respiratory diseases, in both of which cases I have been able to show that there is a much lower correlation with hereditary influences.

The Table shows that while deaths attributable to the first group of causes have declined from 79 per 1,000 Births in 1901 to 34 per 1,000 Births in 1928, the deaths from diarrhœal group have declined from 55 per 1,000 to 7 per 1,000. It is evident that the great majority of infantile deaths occur among the congenitally undesirable type of children and that our efforts to improve the environment of the children are not causing a deterioration of the race, as has been suggested in certain quarters.

TABLE M.—*Infantile Mortality from All Causes and from Specified Causes grouped. Years 1901 and 1928.*

	1901		1928	
	Number of Deaths	Mortality per 1,000 Births	Number of Deaths	Mortality per 1,000 Births
Prematurity ... ..	300	79	186	34
Debility ... ..	335		44	
Marasmus ... ..				
Congenital Malformations ...	83		42	
Convulsions ... ..	292	55	15	7
	1010		287	
Diarrhœal Diseases ... ..	706		56	
Pneumonia ... ..	160		26	98
Bronchitis ... ..	169	29		
	329	127		
All Causes ... ..	2573	*202		619

\*The Infantile Mortality Rate for 1901 (202) was the highest recorded since the year 1871.

## REGISTRATION SUB-DISTRICTS AND SECTIONS.

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A full description of the boundaries of the Sections adopted as statistical units was given in the Annual Report for 1923. Owing to the different enumeration areas adopted in connection with the 1921 Census, the boundaries between Broomhall A and B, and Ecclesall North A and B, have had to be slightly altered. The area involved is in one case 12 acres and in the other 3 acres. With these exceptions the areas remain the same.

Table V gives the estimated population, the density of the population, death rates from all causes and from certain specified causes, infant mortality rates, and birth rates, in each of the statistical areas of the City, and sickness from the notifiable infectious diseases is given in Table XVIII.

With regard to mortality in the statistical areas, while the boundaries of the areas as given in the tables do not accurately conform to the different residential and industrial portions of the City, it will nevertheless be seen that the death rates are, on the whole, higher in the overcrowded and smoky industrial neighbourhoods than in the higher class residential parts, where, of course, the standard of living is generally very much better.

## POSITION OF SHEFFIELD AMONGST THE LARGEST TOWNS.

Table N shows the birth rates, death rates, and infant mortality rates in the 18 largest towns of England and Wales during 1928. The birth rates varied from 22·1 in Liverpool to 15·3 in Bradford. Twelve of the eighteen towns had higher rates than Sheffield. The death rates vary from 10·9 in West Ham and Birmingham to 13·6 in Bradford. Sheffield ranks ninth lowest with 11·8. The infant mortality rates vary from 53 in Croydon to 106 in Salford. Eight of the towns have lower rates than Sheffield.

**TABLE N.**—*Birth Rates and Death Rates in Towns with 200,000 Population for the year 1928.*

Town	Population	Crude Birth Rate per 1,000	Crude Death Rate per 1,000	Infant Mortality
Birmingham ... ..	†976,500	17·6	10·9	65
Liverpool ... ..	†866,000	22·1	13·2	94
Manchester ... ..	†767,530	16·8	12·9	91
<b>SHEFFIELD</b> ... ..	‡515,400	<b>16·4</b>	<b>11·8</b>	<b>73</b>
Leeds ... ..	‡476,500	16·1	12·9	79
Bristol ... ..	‡390,400	16·3	11·5	59
West Ham ... ..	‡306,900	19·3	10·9	64
Hull ... ..	‡297,600	21·2	12·8	79
Bradford ... ..	‡288,500	15·3	13·6	69
Newcastle ... ..	*‡281,500	19·3	13·1	82
Stoke ... ..	‡279,700	19·6	11·7	87
Nottingham ... ..	‡266,600	17·7	12·8	85
Leicester ... ..	‡246,000	16·2	11·2	71
Salford ... ..	‡241,500	16·9	13·3	106
Portsmouth ... ..	*‡240,700	17·2	11·3	55
Cardiff ... ..	‡227,000	18·0	11·7	77
Croydon ... ..	‡216,900	15·7	11·0	53
Plymouth ... ..	‡211,980	17·0	12·0	69

\* Excluding non-civilians.

† Local estimate.

‡ Registrar General's estimate.



## STATISTICAL TABLES.

**TABLE I.**—*Population, Estimated Increase or Decrease, and Natural Increase, 25 Years.*

YEAR.	Estimated Mean Population (per Registrar-General.)	Estimated Increase or Decrease.	Excess of Births over Deaths.
1904	423,355	+ 4,449	6,526
1905	427,850	+ 4,495	5,576
1906	432,395	+ 4,545	5,945
1907	436,986	+ 4,591	6,353
1908	441,630	+ 4,644	6,931
1909	446,321	+ 4,691	6,198
1910	451,065	+ 4,744	6,238
1911	455,817	+ 4,752	5,288
*1912	466,408	+ 10,591	6,226
1913	471,662	+ 5,254	5,842
*1914	476,971	+ 5,309	5,214
1915	476,012	— 959	3,966
1916	465,494	— 10,518	4,752
1917	469,293	+ 3,799	4,134
1918	465,217	— 4,076	1,014
1919	473,695	+ 8,478	3,789
1920	492,700	+ 19,005	6,508
*1921	519,239	+ 26,539	5,623
1922	522,600	+ 3,361	4,707
1923	524,200	+ 1,600	4,183
1924	525,000	+ 800	3,602
1925	526,900	+ 1,900	3,243
1926	523,300	— 3,600	3,086
1927	524,900	+ 1,600	2,090
1928	515,400	— 9,500	2,399

\* City extended October 31st, 1901 ; April 1st, 1912 ; October 1st, 1914 ; and November 9th, 1921.

**TABLE II.**—*Registration Sub-Districts and parts of Registration Sub-Districts, together with the Municipal Wards or parts contained therein.*

Registration Sub-Districts.	Municipal Wards.
Sheffield North ... ..	St. Philip's.
Sheffield South ... ..	St. Peter's (part) ; Crookesmoor (small part containing *64 persons).
Sheffield Park ... ..	Park.
Brightside West ... ..	Brightside (part) ; Burngreave (part) ; Neepsend.
Brightside East ... ..	Brightside (part) ; Burngreave (part).
Attercliffe ... ..	Attercliffe (part).
Darnall ... ..	Darnall.
Handsworth ... ..	Handsworth.
Tinsley (part of S.E. R'ham.) ...	Attercliffe (part).
Hillsbro' ... ..	Hillsbro' (part).
Bradfield (part) ... ..	Hillsbro' (part).
Ecclesfield ... ..	Hillsbro' (part) ; Neepsend (part) ; Brightside (part).
Ecclesall North ... ..	Walkley ; Hillsbro' (part).
Ecclesall West Central ... ..	Crookesmoor (part) ; Hallam ; St. Peter's (small part containing *36 persons).
Ecclesall South (including Norton) ... ..	Ecclesall ; Heeley.
Broomhall ... ..	Broomhall ; Sharrow.

\* Census 1921.

**TABLE III.**—*Marriages and Marriage Rates in Sheffield and in England and Wales since 1890.*

Year.	Total Number of Marriages in Sheffield.	Persons married per 1,000 in Sheffield.	Persons married per 1,000 in England and Wales.
1890	3,174	19·7	15·5
1891	3,128	19·2	15·6
1892	3,091	18·7	15·4
1893	2,797	16·6	14·7
1894	3,215	18·8	15·0
1895	2,810	16·2	15·0
1896	3,322	18·8	15·7
1897	3,465	19·3	16·0
1898	3,496	19·2	16·2
1899	3,663	19·8	16·5
1900	3,508	18·7	16·0
1901*	3,640	18·8	15·9
1902	3,682	17·8	15·9
1903	3,506	16·7	15·7
1904	3,507	16·5	15·3
1905	3,466	16·2	15·3
1906	3,943	18·2	15·7
1907	4,004	18·3	15·9
1908	3,419	15·5	15·1
1909	3,445	15·4	14·7
1910	3,639	16·1	15·0
1911	3,726	16·3	15·2
1912*	3,885	16·7	15·5
1913	4,077	17·3	15·5
1914*	4,062	17·0	15·9
1915	4,905	20·6	19·3
1916	4,256	18·3	14·9
1917	3,968	15·2	13·8
1918	4,066	15·6	15·3
1919	4,947	20·1	19·7
1920	5,075	20·6	20·1
1921*	4,089	16·3	16·9
1922	3,774	14·4	15·7
1923	3,990	15·2	15·2
1924	3,951	15·1	15·3
1925	3,987	15·1	15·2
1926	3,660	14·0	14·3
1927	4,164	15·9	15·7
1928	4,060	15·8	15·3
Average	3,758	17·3	15·8

\* City extended

**TABLE IV.**—*Population and Births and Deaths in Sheffield in past years. Also Birth-rates and Death-rates in Sheffield and in England and Wales.*

YEAR.	POPULATION. (Estimated)	SHEFFIELD.				ENGLAND.	
		BIRTHS.		DEATHS.		Birth-rates.	Death-rates
		Number of Births.	Birth-rates per 1,000 living per annum.	Number of Deaths.	Death-rates per 1,000 living per annum.		
1851	135,310	5,946	41·6	4,027	28·2	34·2	22·0
1861	186,375	7,561	40·5	4,610	24·7	34·6	21·6
1871	241,506	9,674	40·4	6,843	28·3	35·0	22·6
1881	284,508	10,814	38·0	5,909	20·7	33·9	18·9
1891	325,547	11,862	36·4	7,775	23·9	31·4	20·2
*1901	410,151	12,766	33·0	7,891	20·4	28·5	16·9
1902	414,506	13,938	33·6	7,064	17·0	28·5	16·3
1903	418,906	14,136	33·6	7,976	19·0	28·5	15·5
1904	423,355	13,850	32·7	7,284	17·2	28·0	16·3
1905	427,850	13,082	30·6	7,510	17·6	27·3	15·3
1906	432,395	13,420	31·1	7,475	17·3	27·2	15·5
1907	436,986	14,125	32·3	7,772	17·8	26·5	15·1
1908	441,630	14,268	32·3	7,337	16·6	26·7	14·8
1909	446,321	13,296	29·8	7,098	15·9	25·8	14·6
1910	451,065	12,664	28·1	6,426	14·2	25·1	13·5
1911	455,817	12,623	27·7	7,335	16·1	24·4	14·6
*1912	466,408	12,887	27·7	6,661	14·3	23·8	13·3
1913	471,662	13,288	28·2	7,446	15·8	23·9	13·8
*1914	476,971	13,004	27·3	7,790	16·3	23·8	14·0
1915	476,012	12,139	25·5	8,173	17·2	21·8	15·7
1916	465,494	12,014	23·7	7,262	15·6	20·9	14·4
1917	469,293	11,026	21·1	6,892	14·7	17·8	14·4
1918	465,217	10,746	20·6	9,732	20·9	17·7	17·6
1919	473,695	10,353	21·0	6,564	13·9	18·5	13·7
1920	492,700	13,130	26·6	6,622	13·4	25·5	12·4
*1921	519,239	11,907	23·8	6,284	12·5	22·4	12·1
1922	522,600	10,804	20·7	6,097	11·7	20·4	12·8
1923	524,200	10,195	19·4	6,012	11·5	19·7	11·6
1924	525,000	9,712	18·5	6,110	11·6	18·8	12·2
1925	526,900	9,321	17·7	6,078	11·5	18·3	12·2
1926	523,300	9,013	17·2	5,927	11·3	17·8	11·6
1927	524,900	8,526	16·2	6,436	12·3	16·7	12·3
1928	515,400	8,438	16·4	6,099	11·8	16·7	11·7

Population at earlier dates :—1736, 14,105 ; 1801, 45,755 ; 1811, 53,231 ; 1821, 65,275 ; 1831, 91,692 ; 1841, 111,091.

\* City extended.

I desire to call particular attention to the above table, as so many people still lament the progressive decline in the Birth Rate, without, as it seems to me, giving adequate consideration to the laws which govern the increase in population.

The table shows that while in 1851, with a Birth Rate of 41·6 and a Rate of Increase, *i.e.*, excess of Birth Rate over Death Rate, of 13·4, the actual increment of population was 1,919, in 1928, with a Birth Rate of only 16·4 and a Rate of Increase reduced to 4·6 the actual increment was no less than 2,339.

This, of course, is because these rates have to be applied to an enormously increased population. Had the Birth Rate which prevailed in 1851 been maintained in 1928, the actual number of Births would have been 21,441 instead of 8,438.

Under existing social conditions I cannot understand that such an influx of new children could be considered desirable. It would, in my opinion, be inevitably counteracted by a reversion to something like the rates of Infant Mortality which prevailed in the last century.



TABLE V.—Registration Sub-Districts and Sections ; Estimated Population ; Density ; Death-Rates, All Causes

DISTRICT.	NORTH.			SOUTH.			PARK.		BRIGHTSIDE WEST.		BRIGHTSIDE EAST.		ATTERCLIFFE		
	A.	B.	C.	A.	B.	C.	A.	B.	A.	B.	A.	B.	A.	B.	
ESTIMATED POPULATION.	5,127	16,117	9,106	13,443	5,145	7,146	12,635	25,226	23,107	28,393	12,471	31,916	18,174	10,414	
PERSONS PER ACRE ...	52	177	134	81	70	61	94	11	71	16	53	24	67	65	
CAUSES OF DEATH.															
Small Pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Measles ... ..	0·585	0·620	0·110	0·372	0·583	0·280	0·396	0·317	0·173	0·106	0·321	0·219	0·220	0·480	
Scarlet Fever ... ..	...	0·124	...	...	...	0·140	...	0·119	0·087	0·141	...	...	0·055	...	
Diphtheria ... ..	0·195	...	...	0·149	0·389	...	...	0·119	0·173	0·035	0·080	0·125	0·055	...	
Whooping Cough ... ..	...	0·062	...	...	0·194	0·140	...	0·040	...	...	...	...	...	0·096	
Enteric Fever ... ..	...	...	...	...	...	...	...	...	...	0·035	0·080	...	...	...	
Influenza ... ..	...	0·062	0·329	...	...	0·140	...	0·040	0·173	0·317	0·160	0·251	0·165	0·288	
Puerperal Fever... ..	...	0·062	0·110	0·074	...	...	...	0·040	0·173	0·035	0·160	0·251	...	...	
Diarrhœa and Enteritis	0·195	0·248	0·220	0·298	0·389	...	0·237	0·198	0·087	0·282	0·241	0·251	0·275	0·192	
Pneumonia ... ..	1·950	1·489	0·549	1·562	1·555	0·420	1·741	1·625	0·952	0·880	1·844	1·441	1·761	0·960	
Cancer ... ..	2·341	1·303	1·977	1·934	0·583	1·819	1·345	0·991	1·255	1·021	1·123	1·065	1·761	1·920	
Tuberculosis of Respira- tory System ... ..	1·950	1·427	1·318	1·265	1·361	0·840	1·108	0·634	0·822	0·493	1·203	0·815	0·715	0·480	
Other Forms of Tuber- culosis... ..	0·390	0·620	0·110	0·298	0·194	0·140	0·237	0·317	0·476	0·106	0·080	0·157	0·110	0·192	
Rheumatism, etc. ... ..	...	...	0·329	...	0·194	0·140	0·158	0·277	0·173	0·070	0·160	0·125	0·055	0·096	
Diseases of {	Nervous System and Sense Organs ... ..	0·780	0·807	0·879	0·744	0·583	0·560	0·554	0·714	0·779	0·775	0·802	1·128	0·660	0·864
	Circulatory System	6·437	3·413	2·745	5·653	3·304	2·519	3·008	2·775	3·852	2·465	2·967	2·789	2·091	2·977
	Respiratory System except Pneumonia	0·585	0·683	0·439	0·372	0·583	0·280	0·871	0·555	0·563	0·669	0·561	0·909	0·935	1·152
	Digestive System except Diarrhœa and Enteritis ... ..	0·390	0·310	0·439	0·521	0·583	0·280	0·554	0·515	0·606	0·458	0·481	0·345	0·275	0·960
	Genito-Urinary Sys- tem except Venereal Disease ...	0·585	0·496	0·439	0·372	0·972	0·560	0·317	0·515	0·476	0·599	0·401	0·721	0·440	0·288
	Early Infancy ... ..	1·365	1·117	0·439	0·223	1·361	0·420	0·633	0·991	0·692	0·564	0·722	0·689	0·770	0·672
	Puerperal State ex- cept Puerperal Fever ... ..	...	...	...	...	...	...	0·079	0·119	...	...	0·080	0·031	0·165	0·192
Suicide ... ..	0·195	...	...	0·149	0·194	0·140	0·158	0·079	0·130	0·070	...	0·031	0·165	0·096	
Other affections pro- duced by External Causes ... ..	0·780	0·434	0·329	0·446	0·777	0·560	0·475	0·357	0·173	0·599	0·481	0·407	0·550	0·480	
Other Causes ... ..	0·390	0·745	0·549	0·744	1·166	0·280	0·871	1·110	0·519	0·528	0·722	0·752	0·605	0·480	
Death Rates All Causes	19·114	14·022	11·311	15·175	14·966	9·656	12·742	12·447	12·334	10·249	12·669	12·502	11·830	12·867	
Infant Mortality Rates...	80	137	48	43	124	80	73	67	81	81	77	99	84	79	
Birth Rates ... ..	22·040	19·979	16·033	19·192	20·408	10·495	20·657	31·357	18·652	12·996	21·730	16·512	20·964	20·549	
	A.	B.	C.	A.	B.	C.	A.	B.	A.	B.	A.	B.	A.	B.	
DISTRICT	NORTH			SOUTH			PARK		BRIGHTSIDE WEST		BRIGHTSIDE EAST		ATTERCLIFFE		



and Certain Specified Causes, and Birth Rates per 1,000 living, also Infant Mortality Rates, Year 1928.

DARNALL.	HANDSWORTH.	TINSLEY.	HILLSBRO'.	ECCLESFIELD.	ECCLESALL.				BROOMHALL.		SHARROW.	NORTON.	CITY.	DISTRICT.
					NORTH. A.	B.	WEST. CENTL.	SOUTH	A.	B.				
35,931	16,809	6,971	20,693	6,409	10,496	27,050	50,184	49,427	15,013	9,588	24,574	23,835	515,400	ESTIMATED POPULATION
35	5	5	14	3	50	61	7	14	132	38	89	13	16	PERSONS PER ACRE.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	CAUSES OF DEATH.
0.612	0.059	0.143	...	...	0.095	0.296	0.040	0.182	0.266	0.104	0.041	0.168	0.229	Small Pox.
0.083	...	...	...	...	0.286	0.037	...	0.020	0.133	0.104	...	...	0.047	Measles.
0.111	0.178	...	...	...	0.381	0.074	0.020	0.020	0.067	...	0.041	0.042	0.072	Scarlet Fever.
...	...	...	...	...	...	...	0.020	...	0.133	...	0.081	0.084	0.023	Diphtheria.
0.028	...	...	0.048	...	...	0.111	0.020	0.020	...	...	...	0.042	0.019	Whooping Cough.
0.195	0.297	0.430	0.242	0.468	...	0.111	0.100	0.101	0.067	0.209	0.244	0.210	0.165	Enteric Fever.
0.028	0.059	...	...	...	0.191	...	...	0.061	0.133	...	0.122	0.042	0.062	Influenza.
0.278	0.297	...	0.048	0.156	0.095	0.074	0.100	0.081	0.067	...	0.203	0.168	0.171	Puerperal Fever.
1.698	0.476	0.717	0.435	0.312	0.953	0.702	0.817	0.830	0.799	0.417	0.651	0.797	1.046	Diarrhoea and Enteritis.
1.169	0.654	1.291	1.643	0.936	0.857	1.442	1.614	1.497	1.399	2.086	1.384	1.385	1.370	Pneumonia.
0.557	0.476	0.430	0.483	0.936	0.857	0.924	0.418	0.546	1.599	0.834	0.773	0.294	0.745	Cancer.
0.111	...	...	0.145	0.312	0.286	0.111	0.199	0.142	0.200	0.209	0.122	0.168	0.190	Tuberculosis of Respira- tory System
0.083	...	0.287	0.097	0.312	...	0.111	0.179	0.121	0.133	0.209	0.203	0.336	0.140	Other Forms of Tuber- culosis.
0.779	0.476	1.004	1.160	0.468	0.476	1.220	0.917	0.809	0.799	0.626	1.180	0.881	0.846	Rheumatism, etc.
2.366	2.558	1.291	2.416	1.872	3.525	3.438	3.407	3.176	3.797	4.068	3.378	3.482	3.114	Diseases of {
1.002	0.654	0.861	0.628	0.936	0.286	0.702	0.518	0.546	0.533	0.834	0.977	0.420	0.673	
0.417	0.476	0.430	0.387	0.468	0.381	0.481	0.558	0.506	0.533	0.626	0.448	0.503	0.477	
0.417	0.595	0.861	0.773	0.156	0.191	0.518	0.757	0.506	0.733	0.730	0.692	0.797	0.570	
0.557	0.297	0.574	0.435	0.156	0.762	0.628	0.299	0.243	0.400	0.209	0.122	0.420	0.526	
0.028	...	0.143	...	0.156	...	...	0.060	0.020	...	...	...	0.042	0.037	Early Infancy.
0.056	0.059	0.143	0.193	0.312	...	0.074	0.100	0.101	0.200	0.209	0.081	0.084	0.097	
0.445	0.952	0.430	0.435	0.624	0.191	0.370	0.239	0.384	0.466	0.626	0.244	0.210	0.413	Puerperal State ex- cept Puerperal Fever.
0.668	1.011	1.148	0.628	0.468	0.476	0.665	0.857	0.971	1.266	0.939	1.099	1.133	0.801	Suicide.
0.689	9.578	10.185	10.197	9.050	10.290	12.089	11.239	10.885	13.721	13.037	12.086	11.705	11.834	Other affections pro- duced by External Causes.
84	45	113	55	49	78	66	64	50	84	89	43	69	73	Other Causes.
15,589	19,811	11,476	11,501	15,915	20,770	14,455	12,135	11,289	15,120	9,387	13,266	13,342	16,372	Death Rates All Causes.
					A.	B.			A.	B.				Infant Mortality Rates.
					NORTH.		WEST. CENTL.	SOUTH						Birth Rates.
					ECCLESALL.				BROOMHALL.		SHARROW.	NORTON.	CITY.	DISTRICT.

**TABLE VI.**—*Registration Sub-Districts and Sections. Estimated Population, Acreage, and Density; and Birth-Rates, Death-Rates, and Infant Mortality Rates for the Quinquennium, 1923-1927 and 1928.*

Registration Sub-Districts and Sections.				Estimated Population 1928.	Acreage	Persons per Acre 1928	Birth Rates per 1,000 living.		Death Rates per 1,000 living.		Infant Mortality Rates.	
							1923 to 1927.	1928	1923 to 1927.	1928.	1923 to 1927.	1928.
North	...	...	A	5,127	99	52	20·6	22·0	19·3	19·1	119	80
			B	16,117	91	177	25·3	20·0	16·8	14·0	119	137
			C	9,106	68	134	18·3	16·0	12·4	11·3	94	48
South	...	...	A	13,443	165	81	21·0	19·2	14·8	15·2	109	43
			B	5,145	73	70	23·1	20·4	14·7	15·0	103	124
			C	7,146	118	61	13·6	10·5	11·8	9·7	76	80
Park	...	...	A	12,635	135	94	23·4	20·7	14·0	12·7	111	73
			B	25,226	2,372	11	21·3	31·4	12·8	12·4	91	67
Brightside West	...	...	A	23,107	325	71	19·9	18·7	12·6	12·3	90	81
			B	2,8393	1,764	16	17·0	13·0	10·0	10·2	77	81
Brightside East	...	...	A	12,471	236	53	23·1	21·7	13·5	12·7	115	77
			B	31,916	1,357	24	19·2	16·5	10·8	12·5	89	99
Attercliffe	...	...	A	18,174	271	67	22·0	21·0	13·1	11·8	107	84
			B	10,414	159	65	19·1	20·5	12·3	12·9	88	79
Darnall	...	...	...	35,931	1,040	35	20·5	17·6	10·7	11·7	85	84
Handsworth	...	...	...	16,809	3,566	5	21·9	19·8	11·4	9·6	79	45
Tinsley	...	...	...	6,971	1,524	5	16·8	11·5	9·0	10·2	80	113
Hillsborough	...	...	...	20,693	1,521	14	14·3	11·5	10·6	10·2	67	55
Ecclesfield	...	...	...	6,409	2,331	3	15·4	15·9	9·9	9·1	83	49
Ecclesall North	...	...	A	10,496	210	50	21·4	20·8	11·3	10·3	107	78
			B	27,050	444	61	17·5	14·5	10·7	12·1	71	66
Ecclesall West Central	...	...	...	50,184	7,588	7	13·4	12·1	10·9	11·2	71	64
Ecclesall South	...	...	...	49,427	3,613	14	12·6	11·3	9·8	10·9	66	50
Broomhall	...	...	A	15,013	114	132	18·1	15·1	13·7	13·7	92	84
			B	9,588	251	38	11·3	9·4	12·3	13·0	77	89
Sharrow	...	...	...	24,574	275	89	14·0	13·3	11·7	12·1	70	43
Norton	...	...	...	23,835	1,906	13	13·9	13·3	9·7	11·7	68	69
City				515,400	31,616	16	17·8	16·4	11·7	11·8	87	73

**TABLE VII.**—*Infant Mortality; Nett Deaths from stated causes at various ages under One Year. 1928.*

CAUSES OF DEATH					Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 4 weeks.	4 weeks and under 3 months.	3 months and under 6 months.	6 months and under 9 months.	9 months and under 12 months.	Total deaths under 1 year.
Small-Pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chicken-Pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	1	...	8	14	23
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...	1	1	2	4
Diphtheria	...	...	...	...	...	...	...	...	...	1	...	1	2	4
Influenza	...	...	...	...	...	...	...	...	...	1	1	2	...	4
Tuberculosis of Nervous System	...	...	...	...	...	...	...	...	...	1	1	4	1	7
Tuberculosis of Intestines and Peritoneum	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Syphilis	...	...	...	...	1	3	...	...	4	3	1	...	...	8
Meningitis (not Tuberculous)	...	...	...	...	...	...	...	...	...	2	3	1	1	7
Convulsions	...	...	...	...	5	2	1	...	8	5	1	...	1	15
Bronchitis	...	...	...	...	1	...	1	2	4	8	6	8	3	29
Pneumonia	...	...	...	...	2	5	3	4	14	13	22	25	24	98
Inflammation of Stomach	...	...	...	...	2	...	...	...	2	1	1	...	1	5
Diarrhoea and Enteritis	...	...	...	...	2	1	5	4	12	10	14	13	7	56
Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hernia, Intestinal Obstruction	...	...	...	...	1	...	...	...	1	...	1	...	...	2
Congenital Malformations	...	...	...	...	18	4	5	3	30	6	4	2	...	42
Congenital Debility and Sclerema	...	...	...	...	10	6	2	3	21	17	2	3	1	44
Icterus	...	...	...	...	4	1	...	...	5	...	...	...	...	5
Premature Birth	...	...	...	...	134	19	15	9	177	7	2	...	...	186
Injury at Birth	...	...	...	...	6	3	...	...	9	...	...	...	...	9
Diseases of Umbilicus	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atelectasis	...	...	...	...	15	1	2	...	18	...	1	...	...	19
Suffocation, Overlying	...	...	...	...	2	...	...	...	2	2	...	...	...	4
Other Causes	...	...	...	...	5	4	4	3	16	6	10	7	8	47
All Causes	...	...	...	...	208	49	38	28	323	84	71	76	65	619
Number uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	Nil.

Nett Births :—				Nett Deaths :—				Infant Mortality Rate :—			
Legitimate	...	8,145.	...	...	580.	...	...	...	...	71.	...
Illegitimate	...	293.	...	...	39.	...	...	...	...	133.	...



TABLE VIII.—Deaths and Death-rates per annum per 1,000 persons living, from All Causes and from Specified Causes; Persons living; Deaths and Death-rates at Specified Age Periods during 1928.

	Death Rates per 1,000	All Ages.	Under 1 yr.	1 and under 2 yrs.	2 and under 3 yrs.	3 and under 4 yrs.	4 and under 5 yrs.	Total under 5 yrs.	5 and under 10 yrs.	10 and under 15 yrs.	15 and under 20 yrs.	20 and under 25 yrs.	25 and under 35 yrs.	35 and under 45 yrs.	45 and under 55 yrs.	55 and under 65 yrs.	65 and under 75 yrs.	75 yrs. and upward
Age Distribution of Population (Estd.)	...	515400	11434	11856	8609	8633	9516	50048	51109	53323	49175	43596	77968	74420	58754	34437	17188	5382
Deaths ... ..	...	6099	619	184	87	35	39	964	131	64	137	148	302	397	725	957	1215	1059
Death-rates per 1000 per annum ...	11.834	...	54.1	15.5	10.1	4.1	4.1	19.3	2.6	1.2	2.8	3.4	3.9	5.3	12.3	27.8	70.7	196.8
Small Pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ... ..	0.229	118	23	61	16	4	9	113	5	...	...	...	...	...	...	...	...	...
Scarlet Fever ... ..	0.047	24	...	2	2	1	2	7	13	1	1	...	2	...	...	...	...	...
Diphtheria ... ..	0.072	37	4	9	4	3	4	24	11	1	...	...	1	...	...	...	...	...
Whooping Cough ... ..	0.023	12	4	4	3	1	...	12	...	...	...	...	...	...	...	...	...	...
Enteric Fever ... ..	0.019	10	...	...	...	...	...	...	...	1	...	...	2	4	...	2	1	...
Influenza ... ..	0.165	85	4	1	3	...	...	8	...	...	5	1	1	7	16	19	17	11
Puerperal Fever ... ..	0.062	32	...	...	...	...	...	...	...	...	...	6	17	9	...	...	...	...
Diarrhoea and Enteritis ... ..	0.171	88	56	11	2	1	2	72	2	...	1	...	2	1	...	2	4	4
Pneumonia ... ..	1.046	539	98	54	27	8	4	191	32	7	6	12	43	40	68	62	50	28
Cancer ... ..	1.370	706	...	1	...	...	...	1	...	...	5	6	14	49	142	211	209	69
Respiratory Tuberculosis ... ..	0.745	384	...	3	...	2	...	5	2	...	39	43	77	74	79	43	16	1
Other Forms of Tuberculosis ... ..	0.190	98	8	7	8	3	5	31	15	13	9	6	11	1	7	4	...	1
Rheumatism, etc. ... ..	0.140	72	...	...	...	...	...	...	5	3	4	4	8	3	6	15	12	12
{ Nervous System and Sense Organs	0.846	436	13	5	1	2	2	33	2	6	8	8	22	25	53	85	106	88
{ Circulatory System ... ..	3.114	1605	2	1	...	1	...	4	5	6	14	14	27	62	148	267	520	538
{ Respiratory System except Pneumonia ... ..	0.673	347	31	9	3	2	2	47	3	2	1	3	7	18	25	50	86	105
{ Digestive System except Diarrhoea and Enteritis ... ..	0.477	246	11	1	5	2	2	21	11	5	10	2	12	27	47	49	36	26
{ Genito-Urinary System except Venereal Disease ... ..	0.570	294	4	...	...	...	2	6	4	3	5	11	17	25	40	59	84	40
Early Infaney ... ..	0.526	271	269	2	...	...	...	271	...	...	...	...	...	...	...	...	...	...
Puerperal State except Puerperal Fever ... ..	0.037	19	...	...	...	...	...	...	...	...	...	6	8	5	...	...	...	...
Suicide ... ..	0.097	50	...	...	...	...	...	...	...	...	...	2	3	11	12	15	5	2
Other Affections produced by External Causes ... ..	0.413	213	8	6	9	4	3	30	11	1	12	15	14	21	36	19	28	26
Other Causes ... ..	0.801	413	74	7	4	1	2	88	10	10	17	9	14	15	46	55	41	108

The distribution of the population over the age-periods is in accordance with the proportions found at the 1921 Census, and should be taken as approximate only, as, obviously, with a falling Birth-rate, the amount of error must be an increasing quantity.

TABLE IX.—*Mortality at certain age periods, years 1924-28.*

AGE GROUPS.	DEATH RATE PER 1,000 PERSONS LIVING AT EACH AGE OF GROUP.				
	1924.	1925.	1926.	1927.	1928.
Under 1 year ... ..	74·8	67·4	61·3	66·5	54·1
<i>Infant Mortality Rate*</i> ...	90	85	79	91	73
1 and under 2 years ...	20·7	16·0	16·6	19·0	15·5
2    "    3    "    ...	10·9	11·8	10·1	10·4	10·1
3    "    4    "    ...	6·4	6·1	6·2	7·3	4·1
4    "    5    "    ...	2·5	3·4	4·3	4·2	4·1
Total under 5 years ...	25·4	22·9	21·6	23·5	19·3
5 and under 10 years ...	2·2	2·1	2·5	2·3	2·6
10   "   15   "    ...	1·8	1·5	1·6	1·5	1·2
15   "   20   "    ...	2·5	2·7	2·8	2·3	2·8
20   "   25   "    ...	3·3	2·8	2·9	3·6	3·4
25   "   35   "    ...	3·9	3·8	3·4	3·5	3·9
35   "   45   "    ...	5·7	5·0	5·1	5·1	5·3
45   "   55   "    ...	11·2	12·4	11·0	13·0	12·3
55   "   65   "    ...	27·4	26·1	25·8	29·0	27·8
65   "   75   "    ...	61·6	65·2	64·2	73·3	70·7
75 years and over ... ..	159·8	174·5	184·5	185·9	196·8
All Ages ... ..	11·6	11·5	11·3	12·3	11·8

\* Deaths of infants under One Year per 1,000 births.

TABLE X.—*Cases of Infectious Disease notified during each month of the year 1928.*

DISEASES.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	TOTALS.
Small Pox ... ..	27	5	1	15	4	2	2	1	4	...	...	...	61
Scarlet Fever ... ..	237	200	156	163	179	141	164	161	205	394	421	386	2,807
Diphtheria ... ..	86	103	110	79	65	52	46	37	41	70	66	70	825
Typhoid Fever ... ..	1	3	9	2	4	3	4	...	6	10	3	4	49
Measles ... ..	19	17	18	13	7	10	1	1	...	...	...	...	86
Erysipelas ... ..	47	28	40	26	30	22	26	15	27	29	37	35	362
Ophthalmia Neonatorum ...	10	11	7	19	9	8	12	8	7	12	8	11	122
Puerperal Fever ... ..	6	6	12	3	6	2	10	4	5	11	9	8	82
Puerperal Pyrexia ... ..	12	16	13	6	5	5	7	8	19	5	9	18	123*
Pneumonia ... ..	374	289	404	257	222	179	159	88	104	194	157	266	2,693
Cerebro-Spinal Fever ...	...	...	...	...	...	1	1	...	1	1	...	1	5
Acute Poliomyelitis ... ..	...	...	...	...	...	1	2	3	1	...	2	1	10
Encephalitis Lethargica ...	3	1	3	3	1	...	2	1	1	2	1	...	18
Polio-encephalitis ... ..	...	...	...	...	...	...	...	...	...	1	...	1	2
Malaria ... ..	...	...	...	...	...	...	...	...	...	...	...	1	1
Dysentery ... ..	...	...	...	...	...	1	...	...	...	...	...	...	1
Totals ... ..	822	679	773	586	532	427	436	327	421	729	713	802	7,247

\* 18 cases subsequently notified as Puerperal Fever.

Military Cases are included in the above figures.

TABLE XI.—Cases of Infectious Disease notified since 1918

DISEASE	NUMBER OF CASES NOTIFIED.										Annual Averages 10 years 1918-1927.	Cases Notified 1928.
	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926	1927.		
Small Pox ...	...	...	...	...	11	3	4	44	157	667	89	61
Cerebro-Spinal Fever	11	9	5	7	4	9	9	10	11	9	8	5
Acute Poliomyelitis	6	3	6	12	20	1	53	16	6	17	14	10
Polio-Encephalitis...	...	...	1	...	...	...	1	...	...	1	...	2
Scarlet Fever	1,486	1,229	862	1,017	1,293	1,488	1,334	1,283	1,558	3,103	1,465	2,807
Diphtheria ...	610	514	591	689	647	502	514	820	1,053	865	681	825
Enteric Fever	46	14	24	47	47	42	45	40	48	42	40	49
Encephalitis Lethargica	...	*7	17	14	8	9	337	54	41	24	57	18
Erysipelas ...	253	287	242	239	255	251	283	388	346	319	286	362
Puerperal Fever ...	51	69	72	63	61	79	85	83	60	95	72	82
Puerperal Pyrexia...	...	...	...	...	...	...	...	...	*26	123	114	123
									(3 mos.)			
Ophthalmia Neonatorum...	248	219	302	257	243	228	211	215	136	114	217	122
Measles ...	2,972	8,901	†1,155	277	1,358	71	457	220	188	33	1,563	86
Pneumonia	...	*842	1,759	1,275	2,367	2,832	3,347	3,219	2,643	3,154	2,401	2,693
		(10 mos.)										
Trench Fever	...	*5	...	...	...	...	...	...	...	...	1	...
		(10 mos.)										
Dysentery ...	...	*5	2	2	1	2	1	1	...	...	2	1
		(10 mos.)										
Malaria	...	*78	21	13	7	5	1	2	2	4	17	1
		(10 mos.)										
Continued Fever ...	...	...	1	...	...	1	4	...	...	...	1	...
TOTALS	5,683	12,182	5,060	3,912	6,322	5,523	6,686	6,395	6,275	8,570	7,028	7,247

Military Cases are included in the above Table.

\* Made compulsorily notifiable in this year.

† Measles ceased to be compulsorily notifiable 1920.



**TABLE XII.—Measles.** *Mortality in Males and Females, and under certain age periods ; also Mortality Rates, 10 years 1918-1927 and 1928.*

YEARS.	DEATHS.	Rate per 1,000 Persons living.	DEATHS.		AGE AT DEATH.							
			Males.	Fe- males.	Under 1 year.	1 and under 2 Yrs.	2 and under 3 yrs.	3 and under 4 yrs.	4 and under 5 yrs.	5 and under 10 yrs.	10 and under 15 yrs.	Over 15 years.
1918 ...	53	0·11	25	28	14	12	11	6	2	8	...	...
1919 ...	174	0·37	84	90	50	59	28	16	9	10	1	1
1920 ...	115	0·23	57	58	28	55	14	8	4	6	...	...
1921 ...	41	0·08	25	16	13	18	4	3	...	3	...	...
1922 ...	153	0·29	75	78	40	77	17	8	3	8	...	...
1923 ...	10	0·02	5	5	3	3	3	1	...	...	...	...
1924 ...	114	0·22	60	54	35	45	18	8	1	6	1	...
1925 ...	31	0·06	16	15	7	13	3	4	1	3	...	...
1926 ...	71	0·14	39	32	16	28	15	6	5	1	...	...
1927 ...	23	0·04	11	12	6	8	4	1	2	2	...	...
Average 10 years 1918-1927	79	0·16	40	39	21	32	12	6	3	5	...	...
1928 ...	118	0·23	61	57	23	61	16	4	9	5	...	...

**TABLE XIII.—Scarlet Fever.** *Notifications, Percentage of Cases removed to Hospital, Deaths and Percentage Mortality, ten years 1918-1927 and 1928.*

Year ...	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	Average 10 years 1918-1927	1928
Cases Notified ...	1486	1229	862	1017	1293	1488	1334	1283	1557	3103	1465	2807
Percentage of Cases Removed ...	90	86	84	91	90	89	91	89	85	64	86	70
Deaths ...	22	8	6	15	27	11	9	6	10	22	14	24
Percentage Mortality ...	1·5	0·7	0·7	1·5	2·1	0·7	0·7	0·5	0·6	0·7	1·0	0·9

**TABLE XIV.—Whooping Cough.** *Deaths under Certain Age Periods since 1918.*

AGES	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	Average 10 years 1918-1927	1928.
Under 1 year ...	123	6	31	55	10	61	13	52	9	56	42	4
1 and under 2 years ...	100	4	18	35	14	39	12	30	6	50	31	4
2 „ 3 „ ...	28	2	7	9	5	13	2	16	2	14	10	3
3 „ 4 „ ...	15	1	1	1	...	11	2	8	5	7	5	1
4 „ 5 „ ...	10	...	5	3	...	2	1	1	3	2	3	...
Over 5 years ...	12	...	...	2	1	6	1	1	...	3	3	...

**TABLE XV.**—*Diphtheria.—Percentage Mortality in Hospital-treated and Home-treated Cases, 1928.*

	HOSPITAL TREATED.	HOME TREATED.	TOTAL.
Cases Notified ... ..	722	103	825
Deaths ... ..	32	5	37
Percentage Mortality ... ..	4·4	4·9	4·5

**TABLE XVI.**—*Sickness from Puerperal Fever and Mortality from Sepsis and Other Accidents of Childbirth per 1,000 Births, 10 years 1919-1928.*

Year ... ..	Rate per 1,000 Births.									
	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Sickness from—										
(a) Puerperal Fever ... }	6·67	5·48	5·29	5·65	7·75	8·75	8·90	6·66	11·14	9·72
(b) Puerperal Pyrexia (from 1-10-26) ... }	...	...	...	...	...	...	...	11·54§	14·43	14·58
Mortality during Puerperium: Sepsis (including Phlegmasia. Alba Dolens)	2·61	1·52	1·51	1·76	1·37	2·47	2·25	2·33	3·64	3·79
Other Accidents of Childbirth	2·61	2·51	2·35	1·85	2·65	2·06	2·68	3·66	3·64	2·25
Total Childbirth ... ..	5·22	4·03	3·86	3·61	4·02	4·53	4·93	5·99	7·27	6·04

§ The sickness rate for Puerperal Pyrexia is reduced to 7·10 in 1926, 12·55 in 1927 and 12·44 in 1928, when the cases afterwards notified as "Puerperal Fever" are deducted.

**TABLE XVII.**—*Cases of Infectious Disease notified during the year 1928 shown under certain age periods.*

NOTIFIABLE DISEASE.	Number of Cases Notified.							
	At Ages-Years.							
	At all Ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.
Small Pox ... ..	61	1	...	32	6	14	8	...
Scarlet Fever ... ..	2,807	9	505	1,825	327	126	15	...
Diphtheria ... ..	825	12	207	483	78	36	9	...
Typhoid Fever ... ..	49	...	...	8	8	20	13	...
Measles ... ..	86	3	31	47	3	2	...	...
Erysipelas ... ..	362	9	7	25	37	107	142	35
Ophthalmia Neonatorum...	122	122	...	...	...	...	...	...
Puerperal Fever ... ..	82	...	...	...	20	62	...	...
*Puerperal Pyrexia...	123	...	...	...	39	83	1	...
Pneumonia ... ..	2,693	226	855	590	220	341	306	155
Cerebro Spinal Fever ... ..	5	1	2	1	...	1	...	...
Acute Poliomyelitis ... ..	10	2	4	3	1	...	...	...
Polio-Encephalitis... ..	2	...	...	1	1	...	...	...
Encephalitis Lethargica ... ..	18	...	...	5	4	6	2	1
Malaria ... ..	1	...	...	...	1	...	...	...
Dysentery ... ..	1	...	...	...	...	...	1	...
Pulmonary Tuberculosis ... ..	1,844	...	48	748	392	409	229	18
Other Forms of Tuberculosis ... ..	201	8	53	79	28	20	10	3
Totals ... ..	9292	393	1,712	3,847	1,165	1,227	736	212

\* 18 Cases subsequently notified as Puerperal Fever.

Military Cases included :—Tuberculosis of Lungs, 1.

TABLE XVIII.—Cases of Infectious Disease notified during 1928 shown in Registration Sub-Districts and Sections.

NOTIFIABLE DISEASE.	NORTH.			SOUTH			PARK			BRIGHTSIDE WEST		BRIGHTSIDE EAST		ATTERCLIFFE		DARNALL	HANDSWORTH	TINSLEY	HILLSBORO'	ECCLESFIELD	ECCLESALL NORTH		ECCLESALL WEST CENTRAL	ECCLESALL SOUTH	BROOMHALL		SHARROW	NORTON	CITY	Total Cases removed to Hospital.
	A	B	C	A	B	C	A	B	A	B	A	B	A	B	A						B									
Small Pox ...	1	1	...	...	...	1	2	1	15	2	3	...	...	...	...	3	...	2	3	...	...	...	24	...	...	...	...	2	61	61
Scarlet Fever ...	24	58	39	64	180	30	118	186	82	75	120	112	...	...	...	373	68	31	120	36	...	...	234	52	26	113	139	2807	1984	
Diphtheria ...	25	23	10	40	44	15	59	51	53	16	21	21	...	...	...	44	47	5	21	9	...	...	82	38	15	46	18	825	722	
Enteric Fever...	2	3	...	...	...	1	2	2	4	...	1	...	...	...	...	3	1	1	1	1	...	...	4	...	1	1	2	49	27	
Measles ...	9	...	...	4	...	1	6	2	12	...	...	2	...	...	...	4	1	...	1	...	...	9	...	1	2	3	2	86	43	
Erysipelas ...	9	13	6	14	20	4	22	23	19	8	8	11	...	...	...	27	6	9	8	5	...	...	27	6	5	14	17	362	...	
Ophthalmia Neonatorum	...	7	4	6	2	...	16	4	6	1	...	3	3	...	...	14	7	...	2	...	...	...	5	2	1	3	8	122	...	
Puerperal Fever ...	...	4	2	5	...	...	5	5	7	2	...	3	3	...	...	6	3	1	2	...	...	...	7	2	1	2	10	82	...	
*Puerperal Pyrexia ...	...	1	...	37	...	...	4	7	5	4	...	5	5	...	...	9	5	...	2	...	...	...	2	1	1	3	16	123	...	
Pneumonia ...	42	135	40	117	81	21	120	134	178	67	58	150	...	...	...	387	73	24	58	15	...	...	104	74	29	106	85	2693	328	
Cerebro-Spinal Fever	...	...	...	...	1	...	...	2	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	5	...	1
Acute Poliomyelitis ...	...	1	...	...	2	...	1	1	1	...	...	...	...	...	...	1	...	...	...	...	...	...	3	...	...	...	...	10	...	...
Polioencephalitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	2	...	...
Encephalitis Lethargica	...	...	...	...	1	...	1	1	1	...	...	1	...	...	...	2	1	1	...	...	...	...	4	...	...	1	2	18	...	...
Malaria ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...
Dysentry ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Respiratory Tuberculosis ...	27	94	41	53	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1844	2923
Other Forms of Tuberculosis	4	12	1	11	1	1	4	7	8	1	5	8	...	...	...	11	5	5	5	3	...	...	12	6	5	10	12	201	125	
Totals ...	143	352	143	341	132	98	226	544	520	327	661	398	212	398	1046	269	108	262	...	83	...	650	636	254	113	397	350	9292	6214	...

Military Cases included : Tuberculosis of Lungs, 1.

\* 18 Cases subsequently notified as Puerperal Fever.



TABLE XIX.—*Vital Statistics of whole District during 1928 and previous years.*

YEAR.	POPULATION estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS		NETT DEATHS BELONGING TO THE DISTRICT			
		Un- corrected Number.	Nett.		Number.	Rate.	of Non- residents registered in the District.	of Resi- dents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number	Rate.					Number.	Rate per 1,000 Net Births.		
1923 ...	524,200	10,271	10,195	19.4	6,038	11.5	263	237	915	90	6,012	11.5
1924 ...	525,000	9,817	9,712	18.5	6,145	11.7	278	243	871	90	6,110	11.6
1925 ...	526,900	9,461	9,321	17.7	6,185	11.7	333	226	788	85	6,078	11.5
1926 ...	523,300	9,158	9,013	17.2	6,022	11.5	310	215	712	79	5,927	11.3
1927 ...	524,900	8,684	8,526	16.2	6,526	12.4	338	248	774	91	6,436	12.3
1928 ...	515,400	8,586	8,438	16.4	6,214	12.1	362	247	619	73	6,099	11.8

NOTE.—This Table is arranged to show the gross births and deaths in the district, and the births and deaths properly belonging to it, with the corresponding rates. The rates have been calculated per 1,000 of the estimated gross population.









TABLE XX.—Continued.

CAUSE OF DEATH.	TOTALS—ALL AGES.		Under 1 year.		1 & under 2 years.		2 & under 3 years.		3 & under 4 years.		4 & under 5 years.		TOTALS—UNDER FIVE YEARS.		5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 & under 45 years.		45 & under 55 years.		55 & under 65 years.		65 & under 75 years.		75 & under 85 years.		85 years & upwards.		TOTALS—ABOVE FIVE YEARS.						
	Totals	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals	M.	F.			
GENERAL DISEASES—Contd.																																											
42. Other Infectious Diseases																																											
(1) Vaccinia ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
(2) Other Diseases included under 42 ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Totals—Epidemic, Endemic and Infectious Diseases ...	843	495	348	29	28	45	44	17	22	11	3	10	10	112	107	219	22	26	16	8	31	23	29	58	40	61	31	84	32	60	18	23	16	4	1	2	383	241	624				
II.—OTHER GENERAL DISEASES NOT INCLUDED IN 1-42 ...																																											
43. Cancer of the Buccal Cavity	58	51	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
44. „ Pharynx, Oesophagus, Stomach, Liver and Annexa ... ..	185	101	84	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
45. „ Peritoneum, Intestines and Rectum ... ..	135	68	67	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
46. „ Female Genital Organs	90	...	90	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
47. „ Breast ... ..	62	2	60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
48. „ Skin ... ..	14	10	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
49. „ other or unspecified organs	162	105	57	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
50. Tumours not returned as malignant (brain and female genital organs excepted) ...	9	5	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
51. Rheumatic Fever ... ..	36	15	21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
52. Chronic Rheumatism, Osteo-Arthritis, Gout—																																											
(1) Chronic Rheumatism, Chronic Arthritis ...	3	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
(2) Rheumatoid Arthritis, Osteo-Arthritis ... ..	29	11	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
(3) Gout ... ..	4	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
53. Scurvy ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

TABLE XX.—Continued.

CAUSE OF DEATH.	TOTALS—ALL AGES.			Under 1 year.		1 & under 2 years.		2 & under 3 years.		3 & under 4 years.		4 & under 5 years.		TOTALS—UNDER FIVE YEARS.			5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 & under 45 years.		45 & under 55 years.		55 & under 65 years.		65 & under 75 years.		75 & under 85 years.		85 years & upwards.		TOTALS—ABOVE FIVE YEARS.											
	Totals	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals	M.	F.											
OTHER GENERAL DISEASES NOT INCLUDED IN 1-42—Contd.																																																		
54. Pellagra ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
55. Beri-beri ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
56. Rickets ... ..	4	3	1	...	...	2	...	1	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
57. Diabetes ... ..	56	23	33	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
58. Anaemia, Chlorosis—																																																		
A. Pernicious Anaemia ...	9	3	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
B. Other Anæmias and Chlorosis ... ..	3	2	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
59. Diseases of the Pituitary Gland ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
60. Diseases of the Thyroid Gland—																																																		
A. Exophthalmic Goitre ...	12	4	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
B. Other Diseases of the Thyroid Gland—																																																		
(1) Myxoedema ... ..	4	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
(2) Cretinism ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
(3) Other Diseases included under 60B. ... ..	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
61. Diseases of the Parathyroid Glands—																																																		
(1) Tetany ... ..	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
(2) Other Diseases of the Parathyroid Glands ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
62. Diseases of the Thymus ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
63. Diseases of the Adrenals ...	4	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
64. Diseases of the Spleen ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
65. Leukæmia Lymphadenoma																																																		
A. Leukæmia... ..	11	6	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
B. Lymphadenoma ... ..	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
66. Alcoholism (acute or chronic)	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...



TABLE XX.—Continued.

CAUSE OF DEATH.	TOTALS—ALL AGES.		Under 1 year.		1 & under 2 years.		2 & under 3 years.		3 & under 4 years.		4 & under 5 years.		TOTALS—UNDER FIVE YEARS.			5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 & under 45 years.		45 & under 55 years.		55 & under 65 years.		65 & under 75 years.		75 & under 85 years.		85 years & upwards.		TOTALS—ABOVE FIVE YEARS.				
	Totals	M	F	M	F	M	F	M	F	M	F	M	F	Totals	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Totals	M	F			
OTHER GENERAL DISEASES NOT INCLUDED IN 1-42—Contd.																																										
67. Chronic Poisoning by Mineral Substances—																																										
(1) Occupational Lead Poisoning ...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
(2) Other Chronic Poisoning by Mineral substances	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
68. Chronic Poisoning by Organic Substances ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
69. Other General Diseases—																																										
(1) Purpura ...	4	2	2	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
(2) Hæmophilia ...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
(3) Other Diseases included under 69 ...	3	1	2	1	1	...	1	...	...	...	...	...	...	1	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Totals—Other General Diseases not included in 1-42 ...	906	425	481	4	1	3	2	1	...	...	...	...	...	8	3	11	4	4	3	5	9	10	5	8	21	21	38	76	97	129	135	125	111	32	49	4	6	417	478	895		
Totals—General Diseases ...	1749	920	829	33	29	48	46	18	22	11	3	10	10	120	110	230	26	30	19	36	40	33	34	66	61	82	69	160	129	189	153	148	127	36	57	5	8	800	719	1519		
III.—DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS																																										
70. Encephalitis—																																										
(1) Cerebral Abscess...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(2) Other Diseases included under 70 ...	1	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
71. Meningitis ...	22	10	12	3	4	...	1	...	...	...	...	...	...	6	9	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
72. Tabes Dorsalis (Locomotor Ataxy) ...	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
73. Other Diseases of the Spinal Cord ...	11	5	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

**TABLE XX.**—*Continued.*

[illegible]

TABLE XX.—Continued.

CAUSE OF DEATH.	TOTALS—ALL AGES.			Under 1 year.		1 & under 2 years.		2 & under 3 years.		3 & under 4 years.		4 & under 5 years.		TOTALS—UNDER FIVE YEARS.			5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 & under 45 years.		45 & under 55 years.		55 & under 65 years.		65 & under 75 years.		75 & under 85 years.		85 years & upwards.		TOTALS—ABOVE FIVE YEARS.											
	Totals	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals	M.	F.								
DISEASES OF THE NERVOUS SYSTEM, ETC.— <i>Contd.</i>																																																		
(5) Other Diseases included under 84...	3	1	2							1				1																																				
85. Diseases of the Eye & Annexa	2	1	1																																															
86. Diseases of the Ear and of the Mastoid Sinus—																																																		
(1) Diseases of the Mastoid Sinus ...	5	2	3											1	1																																			
(2) Diseases of the Ear ...	11	7	4																																															
Totals— <i>Diseases of the Nervous System and Sense Organs</i> — ...	436	183	253	12	11	...	5	1	1	1	1	1	1	14	19	33	1	1	4	2	5	3	4	4	8	14	13	12	23	30	31	54	47	59	30	48	3	7	169	234	403									
IV.—DISEASES OF THE CIRCULATORY SYSTEM—																																																		
87. Pericarditis ...	11	9	2														2			1	1	1	1				2	1																						
88. Acute Endocarditis and Myocarditis—																																																		
(1) Malignant Endocarditis...	14	8	6																																															
(2) Other Acute Endocarditis	3	2	1																																															
(3) Acute Myocarditis	13	8	5											1																																				
89. Angina Pectoris ...	16	12	4																																															
90. Other Diseases of the Heart—																																																		
(1) Aortic Valve Disease ...	49	26	23																																															
(2) Mitral Valve Disease ...	127	45	82																																															
(3) Aortic and Mitral Valve Disease ...	7	4	3																																															
(4) Other or Unspecified Valve Disease ...	83	33	50																																															
(5) Fatty Heart ...	13	6	7																																															
(6) Dilatation of Heart (cause unspecified) ...	37	23	14																																															
(7) Other or unspecified Myocardial Disease...	411	197	214																																															



Table XX.—Continued.

CAUSE OF DEATH	TOTALS—ALL AGES.			Under 1 year.		1 & under 2 years.		2 & under 3 years.		3 & under 4 years.		4 & under 5 years.		TOTALS UNDER FIVE YEARS.			5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 & under 45 years.		45 & under 55 years.		55 & under 65 years.		65 & under 75 years.		75 & under 85 years.		TOTALS—ABOVE FIVE YEARS.												
	Totals	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals	M.	F.										
DISEASES OF THE CIRCULATORY SYSTEM— <i>Contd.</i>																																																	
(8) Disordered Action of the Heart ... ..	27	8	19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
(9) Heart Disease (undefined)	22	11	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
91. Diseases of the Arteries—																																																	
A. Aneurysm ... ..	8	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
B. Arterio-Sclerosis—																																																	
(1) With record of Cerebral Vascular Lesion ...	182	78	104	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
(2) Without " " "	549	289	260	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
c. Other Diseases of the Arteries ... ..	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
92. Embolism and Thrombosis	4	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
93. Diseases of the Veins (Varix, Hemorrhoids, Phlebitis, etc.)	18	10	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
94. Diseases of the Lymphatic System (Lymphangitis, etc.) ... ..	3	3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
95. Hemorrhage without stated cause ... ..	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
96. Other Diseases of the Circulatory System ... ..	5	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals—Diseases of the Circulatory System ... ..	1605	786	819	1	1	...	...	...	...	...	...	...	...	...	...	...	3	1	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
V.—DISEASES OF THE RESPIRATORY SYSTEM—																																																	
97. Diseases of the Nasal Fossæ and Annexæ—																																																	
(1) Diseases of the Nose ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
(2) Diseases of the Accessory Nasal Sinuses ... ..	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	











TABLE XX.—Continued.

CAUSE OF DEATH.	TOTALS—ALL AGES.			Under 1 year.		1 & under 2 years.		2 & under 3 years.		3 & under 4 years.		4 & under 5 years.		TOTALS UNDER FIVE YEARS.			5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 & under 45 years.		45 & under 55 years.		55 & under 65 years.		65 & under 75 years.		75 & under 85 years.		85 years & upwards.		TOTALS—ABOVE FIVE YEARS.								
	Totals	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals	M.	F.	Totals	M.	F.							
NON-VENEREAL DISEASES OF THE GENITO-URINARY SYSTEM— <i>Contd.</i>																																															
133. Diseases of the Bladder—																																															
(1) Cystitis ... ..	7	4	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
(2) Other Diseases of the Bladder ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
134. Diseases of the Urethra, Urinary Abscess, etc.—																																															
A. Stricture of the Urethra ...	4	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
B. Other Diseases of the Urethra ... ..	3	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
135. Diseases of the Prostate ...	33	33	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
136. Non-Veneral Diseases of the Male Genital Organs ...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
137. Cysts and other Tumours of the Ovary not returned as malignant ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
138. Salpingitis and Pelvic Abscess in Females—																																															
(1) Salpingitis ... ..	3	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
(2) Pelvic Abscess in Females	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
139. Tumours of the Uterus not returned as malignant ...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
140. Non-Puerperal Uterine Hemorrhage ... ..	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
141. Other Diseases of the Female Genital Organs—																																															
(1) Other Diseases of the Uterus ... ..	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(2) Diseases of the other Female Genital Organs not included under other headings ... ..	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...







**TABLE XX.**—*Continued.*

[illegible]



TABLE XX.—Continued.

CAUSE OF DEATH	TOTALS—ALL AGES.			TOTALS—UNDER FIVE YEARS.			5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 & under 45 years.		45 & under 55 years.		55 & under 65 years.		65 & under 75 years.		75 & under 85 years.		85 years & upwards.		TOTALS—ABOVE FIVE YEARS.					
	Totals	M	F.	Totals	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals	M.	F.			
XIII.—OLD AGE—																																		
164. Old Age—																																		
(1) Senile Dementia ...	17	2	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
(2) Other forms of Senile Decay ...	89	33	56	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Totals—Old Age ...	106	35	71	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
XIV.—EXTERNAL CAUSES.																																		
165 and 166. Suicide by Solid or Liquid Poisons and Corrosive Substances ...	3	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
167. Suicide by Poisonous Gas ...	18	11	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
168. Suicide by Hanging or Strangulation ...	10	7	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
169. Suicide by Drowning ...	9	8	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
170. Suicide by Firearms ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
171. Suicide by Cutting or Piercing Instruments ...	8	6	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
172. Suicide by Jumping from High Place ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
173. Suicide by Crushing... ..	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
174. Suicide by other means ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
175. Food Poisoning ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
176. Poisoning by Venomous Animals ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
177. Other Acute Accidental Poisoning (not by gas) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
178. Conflagration ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
179. Accidental Burns (conflagration excepted) ...	25	10	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

**TABLE XX.—Continued.**

[illegible]

TABLE XX.—Continued.

CAUSE OF DEATH.	TOTALS—ALL AGES.		Under 1 year.		1 & under 2 years.		2 & under 3 years.		3 & under 4 years.		4 & under 5 years.		TOTALS—UNDER FIVE YEARS.		5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 & under 45 years.		45 & under 55 years.		55 & under 65 years.		65 & under 75 years.		75 & under 85 years.		85 years & upwards.		TOTALS—ABOVE FIVE YEARS.										
	Totals	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals	M.	F.								
EXTERNAL CAUSES—Contd.																																															
198. Homicide by Cutting or Piercing Instruments ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
199. Homicide by other means ...	3	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
200. Infanticide (under 1 year) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
201. Fracture (cause not specified)	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
202. Other and unstated forms of Accidental Violence ; Execution ...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
203. Violent Deaths of Unstated Nature and cause (i.e. Accidental, Suicidal, etc.)	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...			
Totals—External Causes.	263	177	86	6	2	2	4	5	4	1	3	2	1	16	14	30	8	3	...	1	9	3	14	3	16	1	27	5	34	14	25	9	17	16	10	13	1	4	161	72	233						
XV.—ILL-DEFINED DISEASES.																																															
204. Sudden Death ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
205. Cause of Death unstated or ill-defined—																																															
(1) Heart Failure (age 1-70)	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
(2) Other ill-defined causes...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(3) Cause not specified ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals—Ill-defined Diseases ...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTALS ...	6099	3226	2873	371	248	88	96	49	38	22	13	24	15	554	410	964	68	63	39	25	76	61	76	72	142	160	220	177	430	295	531	426	643	572	389	493	58	119	2672	2463	5135						



## CITY HOSPITALS.

Statistics have been furnished by Dr. Egerton H. Williams, Medical Superintendent of the City Hospitals, with regard to hospital treatment during 1928 and previous years, also in reference to bacteriological and other examinations carried out during the year by the staff, as follows :—

**TABLE XXI.**—*Daily Average Number of Patients in the City Hospitals.*

Year.	Daily Average Number of Cases in each of the City Hospitals.						Total Daily Average Cases in the City Hospitals	Highest Number in any one day.	Date.	Lowest Number in any one day.	Date.	
	Lodge Moor.	Redmires Camp.	Crimicar Lane.	Winter Street.	Moor End.	Contact Cottages.						
						Dart Square.						Edmund Road.
1911	217·7	...	18·8	...	19·2	...	...	255·7	351	Mar. 31	191	Aug. 26
1912	252·8	...	19·4	20·4 (6 months)	19·6	...	...	312·2	319	Jan. 6	191	April 29
1913	348·8	...	24·5	68·8	24·5	...	...	466·6	559	Dec. 13.	366	Jan. 22
1914	335·4	...	27·0	76·0	25·8	...	...	464·2	554	Mar. 5 & 10	364	Nov. 9
1915	303·4	...	78·2	Entirely under Military control	28·7	...	...	410·3	506	Nov. 18 & 20	354	April 29
1916	203·6	...	91·18	Military 95·7	27·23	...	...	417·7	482	Jan. 29	356	Jan. 10
1917	223·58	...	93·16	Military 111·81	27·96	...	...	456·5	566	Dec. 29 & 30	379	Sept. 10
1918	252·05	...	98·65	Military 90·13	32·75	...	...	473·5	574	Jan. 17	381	Aug. 14
1919	211·56	...	100·36	Military and Consumptives *37·31	41·75	...	...	390·98	501	Oct. 23	285	July 2
1920	210·09	...	102·59	Consumptives 92·04	41·76	...	...	446·48	570	May 29	339	Aug. 28
1921	228·85	...	99·9	91·74	40·66	...	...	461·15	563	Dec. 20 & 22	353	Aug. 29
1922	245·4	...	102·0	92·1	40·8	...	...	480·3	562	May 4	367	Sept. 4
1923	261·1	...	106·9	97·2	40·7	...	...	505·9	572	Feb. 8	392	Aug. 18 & 21
1924	282·09	...	103·28	102·5	38·18	...	...	526·05	588	June 1	442	Sept. 8
1925	277·5	1·43	107·1	105·32	42·2	...	1·78	535·3	639	Nov. 27	465	Aug. 28
1926	339·86	13·86	107·6	105·04	43·05	...	6·7	616·1	716	Dec. 29	536	June 28
1927	373·48	45·17	108·99	104·14	42·56	1·71	6·07	682·12	843	Jan. 28	606	Aug. 30
1928	346·57	5·96	108·73	105·12	43·06	1·47	...	610·91	712	Dec. 29 & 30	517	Aug. 31

\*Military Cases—100·76, 6 weeks. Consumptive Cases—60·73, 5 months.

**TABLE XXII.**—*Showing the Notifications, Percentages of Cases admitted, and Death Rate, for the Three Principal Diseases.*

Year.	Notifications.			Percentage of Cases Admitted on Notifications.			Total	Death Rate Calculated on Total completed Cases.
	Scarlet Fever.	Diphtheria.	Enteric Fever.	Scarlet Fever.	Diphtheria.	Enteric Fever.		
1903	2,114	492	345	67·3	44·2	75·2	62·2	5·06
1904	2,906	400	348	76·8	53·3	72·2	67·4	4·4
1905	3,087	407	322	69·5	52·5	71·9	64·6	4·1
1906	4,905	675	390	63·3	50·9	81·0	65·08	4·6
1907	2,358	431	212	72·7	48·4	75·0	65·3	4·9
1908	1,404	438	237	80·6	62·7	75·5	72·9	4·1
1909	1,532	376	175	81·2	66·3	76·2	74·5	3·6
1910	1,356	401	124	78·6	69·3	79·2	78·6	3·7
1911	1,385	505	253	84·5	74·4	80·2	79·7	4·3
1912	1,741	548	164	90·6	77·1	80·4	86·9	3·8
1913	3,512	831	73	68·4	67·7	61·6	68·1	3·3
1914	3,131	846	114	74·8	71·6	72·8	74·1	3·9
1915	2,163	1,006	102	82·9	78·03	84·3	81·38	3·8
1916	847	817	69	87·1	84·7	73·9	85·4	4·4
1917	1,170	545	55	88·4	89·3	83·6	88·5	3·8
1918	1,491	615	45	89·6	91·7	86·6	90·1	3·3
1919	1,230	513	16	85·36	87·9	93·75	86·18	1·8
1920	866	600	25	84·52	88·33	88·0	86·1	2·2
1921	1,013	685	47	90·8	88·46	74·46	89·45	2·2
1922	1,296	648	47	88·96	88·11	68·08	88·19	4·02
1923	1,490	502	42	87·24	91·43	71·42	87·95	1·78
1924	1,332	515	45	89·8	91·4	71·1	89·8	1·74
1925	1,285	825	40	88·4	93·21	72·5	89·9	2·33
1926	1,563	1055	47	84·5	93·2	63·8	87·6	2·8
1927	3,111	866	44	63·7	90·3	56·8	69·3	1·87
1928	2,813	826	49	70·17	87·5	55·1	73·86	1·69

Owing to lack of accommodation, a number of Scarlet Fever cases were not removed.

During the year there were several severe cases of Scarlet Fever, but owing to the valuable results obtained by the use of Scarlet Fever Anti-Streptococcus Serum the mortality rate was only increased to the extent of 0·16% over the previous year.





## SANITARY ADMINISTRATION.

## GENERAL SANITARY WORK.

TABLE XXIV.—*Summary of Work done by Sanitary Inspectors during 1928.*

Details of Work done	No. 1 District	No. 2 District	No. 3 District	No. 4 District	No. 5 District	No. 6 District	TOTAL
(1) Premises visited on account of Nuisances .. ..	1,838	2,456	4,188	719	3,627	4,153	16,981
(2) Premises where Smoke Test applied to Drains .. ..	169	160	125	16	76	67	613
(3) Premises where Water Test applied to Drains .. ..	213	499	322	71	261	386	1,752
(4) Premises where Colour Test applied to Drains .. ..	101	103	78	9	109	37	437
(5) Visits to work in progress ..	3,353	3,984	1,928	854	4,138	2,715	16,972
(6) Miscellaneous Visits ... ..	5,055	8,684	8,458	1,632	10,650	9,005	43,484
(7) Interviews with Owners ..	341	439	464	248	666	394	2,552
(8) Nuisances abated ... ..	2,029	2,575	2,857	552	2,777	2,754	13,544
(9) Yards paved .. ..	116	24	565	28	199	154	1,086
(10) Visits for Zymotic Diseases ..	520	647	1,023	457	965	776	4,388
(11) Visits for Disinfection of Premises .. ..	303	506	709	295	684	597	3,094
(12) Visits to Milkshops and Cowsheds .. ..	235	95	126	145	189	298	1,088
(13) Visits to Butchers' Shops and Slaughterhouses .. ..	809	1,783	1,079	642	3,310	1,120	8,743
(14) Visits to Offensive Trades ...	49	94	76	74	376	247	916
(15) Notices Served (a) Statutory	205	596	767	73	546	244	2,431
Do. (b) Informal	1,270	3,128	2,560	740	3,141	1,428	12,267
(16) Proceedings taken .. ..	..	24	12	1	27	1	65

NOTE—Districts re-arranged on 1st October, 1928, six districts taking the place of five into which the City was previously divided. The figures for No. 4 District are for a period of three months only.

In addition to the visits shown at No. 10 in the above Table, 227 visits were paid to Small Pox Contacts by the Staff of Women Inspectors.

## HOUSING OF THE WORKING CLASSES.

It is still impracticable to apply all the powers contained in the Housing Acts on account of the impossibility of re-housing those who occupy houses which are unfit for habitation and which ought to be condemned. The following statement shows the result of the action taken :—

Fourteen Representations under the Housing Act, 1925, were made during the year. They had reference to the following properties :—

1, 2, 3, and 4 in Court 2, Cumberland Street ; 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17 and 18, Canal Cottages, Tinsley Park Road ; 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19, Wharf Road, Tinsley ; 28 and 30, and 1 and 2 in Court 4, Paradise Street ; 1 and 2 in Court 4, and 62, Doncaster Street, and 43, Matthew Street ; 1, 2, 3, 4, 5, 6 and 7 in Court 14 and 50, 52 and 54, Hoyle Street, and 4, 6, 8 and 10, Malinda Street ; 1, 2, 3, and 4 in Court 1, and 81 and 83, Wicker, 4, 6, 8, 10, 12 and 14, Andrew Street, 36, 38 and 40, Wicker Lane, and 7, Scholey Street ; 1, 2, 3, 4, 5, 6, 7, and 8 in Court 35, Upper Allen Street ; 2 and 3 in Court 23 and 125, Martin Street ; 37, 39 and 41, Leicester Street ; 76 and 78, Upper St. Philip's Road ; Four Cottages known as Fox Hill Cottages, Fox Hill Road ; 15 and 17, Ben Lane ; 1, 2, 3 and 4 in Court 7 and 23 and 29, Radford Street.

Closing Orders were made in respect of the foregoing houses, with the exception of the four cottages known as Fox Hill Cottages, (negotiations are pending in this case, and the matter is in abeyance), and 2 and 3 in Court 23 and 125, Martin Street. In the latter case the requirements of the Department have been voluntarily complied with, and two of the houses have been closed.

Demolition Orders were made with respect to 1, 2, 3 and 4 in Court 2, Cumberland Street. The houses were demolished in August, 1928.

The following statement summarises the action taken under Part II. of the Housing Act, 1925, with regard to Reconstruction Schemes.

DESCRIPTION OF AREA.	DATE OF ORDER OF MINISTRY OF HEALTH CONFIRM- ING SCHEME.	REMARKS.
Duke Street, Crown Alley Lane and Bard Street Area. (41 houses involved) ..	Sept. 22nd, 1926 ..	Area cleared.. All tenants gone to Wybourn Estate.
Matthew Street and Queen's Row Area. (101 houses involved). ..	Sept. 22nd, 1926. ..	Do.
River Lane and Creswick Walk Area. (31 houses involved.) ..	July 6th, 1927. ..	Do.
Lambert Street, Furnace Hill and Scotland Street Area. (126 houses involved). ..	May 7th, 1928. ..	A considerable portion of the area has been cleared.
Bailey Street, Townhead Street Area (95 houses involved) ..	— ..	Proceedings pending
Spring Street Area (174 houses involved) :	— ..	Do.

Particulars with regard to the work will be found in table XXVII.

1,900 new houses were certified during the year 1928, as against 2,112 in 1927, 2,536 in 1926, 2,050 in 1925, 887 in 1924, 665 in 1923, 979 in 1922, and 1,031 in 1921.

During 1928 there were 4,060 marriages and 2,399 more births than deaths. The overcrowding in the City is still deplorable.

The number of families on the waiting list of the City Treasurer for Municipal houses was, at the time of going to print, 7,000.

Very numerous applications of a most pathetic description are received at this office, of which only a very small number can be entertained. Unfortunately, this has led in many cases to subletting by tenants of the Corporation, and already owing to this fact conditions are being created in some of the Corporation Estates which are most undesirable, but which it is impossible for the Treasurer's Department to control until the population can be adequately housed. The City Treasurer is, however, dealing as far as possible, and without avoidable delay, with all cases in which defects or abuse by tenants of the property are reported by the Medical Officer of Health, and is co-operating in every way with the efforts of the Health Department to prevent the development of insanitary conditions.

The following table shows the number of dwelling houses certified for human habitation since 1886, the figures being for the Municipal year ending 31st March—thus the number for the year 1928 means the number certified during the year ended 31st March, 1929.

**TABLE XXV.**—*Houses Certified since year 1886.*

Year ending March.	Houses Certified	Year ending March.	Houses Certified	Year ending March.	Houses Certified
1886	725	1901	2,118	1916	397
1887	928	1902	1,977	1917	57
1888	806	1903	2,051	1918	8
1889	830	1904	1,963	1919	78
1890	903	1905	1,982	1920	413
1891	692	1906	1,904	1921	1,165
1892	786	1907	1,753	1922	814
1893	822	1908	1,778	1923	646
1894	632	1909	1,469	1924	1,061
1895	523	1910	1,243	1925	2,178
1896	1,059	1911	866	1926	2,714
1897	1,443	1912	703	1927	1,897
1898	2,273	1913	542	1928	1,926
1899	2,650	1914	570		
1900	2,876	1915	399		

The following table shows the number of new houses certified as fit for human habitation by the Chief Building Surveyor during each calendar month from the Armistice to the end of March, 1929.:—

**TABLE XXVI.**—*Houses certified each month since the Armistice.*

PERIOD	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
January ...	...	Nil	18	43	81	25	54	95	116	215	46	126
February ...	...	Nil	9	34	140	100	44	111	111	173	44	258
March ...	...	Nil	23	119	109	40	48	114	221	238	321	53
April ...	...	Nil	30	48	99	41	29	165	170	113	46	...
May ...	...	Nil	2	31	126	58	34	153	228	189	87	...
June ...	...	Nil	43	70	98	55	84	115	124	172	75	...
July ...	...	1	...	47	172	36	69	173	367	173	148	...
August ...	...	Nil	17	43	30	35	86	183	47	225	120	...
September ...	...	Nil	10	122	4	27	65	230	342	300	151	...
October ...	...	Nil	67	89	54	62	122	257	423	175	243	...
November ...	Nil	Nil	6	215	44	44	90	259	258	76	235	...
December ...	1	27	42	170	22	142	162	195	129	63	384	...

Of the 1,926 houses certified in the last 12 months of the period given in the table, 904 were erected by the Corporation.

During the year under review the work of repaving back yards has received special attention, and 1,086 yards have been completed. In my opinion this is one of the most important practical sanitary reforms, as it can constantly be seen that when an unpaved and dirty backyard is put in good condition the effect is to improve sanitary conditions and cleanliness of the whole interior of the houses using such yard.

The whole cost of this work falls upon the property owners, and there are many cases of small owners where the expenditure involves considerable hardship or where the money actually cannot be found. This naturally interferes very much with the progress of the work.

The City Council agreed to the recommendation of the Health Committee that in suitable cases this work might be carried out at the cost of the Corporation, and the amount repaid by the owner by instalments to be approved by the Committees concerned. This arrangement has greatly facilitated this most important sanitary reform during the last few years.



TABLE XXVII.—HOUSING.—1928.

## 1. INSPECTION OF DWELLING-HOUSES.

(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	...	...	...	...	...	...	...	16,981
(2) Number of dwelling-houses (included under Sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	...	...	...	...	...	...	...	269
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	...	...	...	...	...	...	...	171
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	...	...	...	...	...	...	...	6

## 2. REMEDY OF DEFECTS WITHOUT SERVICE OF FORMAL NOTICES.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers	...	...	...	...	10,880
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## 3. ACTION UNDER STATUTORY POWERS.

## A.—Proceedings under section 3 of the Housing Act 1925—

(1) Number of dwelling-houses in respect of which notices were served requiring repairs	...	...	...	...	...	...	...	10
(2) Number of dwelling-houses which were rendered fit after service of formal notices :—								
(a) By owners	...	...	...	...	...	...	...	1
(b) By Local Authority in default of owners	...	...	...	...	...	...	...	—
(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close								—

## B.—Proceedings under Public Health Acts—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	...	...	...	...	...	2,431
(2) Number of dwelling-houses in which defects were remedied after service of formal notices—						
(a) By owners	...	...	...	...	...	2,722
(b) By Local Authority in default of owners	...	...	...	...	...	1

## C.—Proceedings under sections 11, 14 and 15 of the Housing Act, 1925—

(1) Number of representations made with a view to the making of Closing Orders	...	...	...	...	...	...	...	14
(2) Number of dwelling-houses in respect of which Closing Orders were made	...	...	...	...	...	...	...	92
(3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit	...	...	...	...	...	...	...	—
(4) Number of dwelling-houses in respect of which Demolition Orders were made	...	...	...	...	...	...	...	4
(5) Number of dwelling-houses demolished in pursuance of Demolition Orders	...	...	...	...	...	...	...	4

## CANAL BOATS ACTS.

The number of inspections of Canal Boats during the year was 239. On the whole the boats were in fairly good condition.

The total number of infringements complained of was 52, relating to 36 inspections of boats. The infringements complained of were :—

Absence of certificate	..	..	..	..	..	..	..	24
Certificate not identifying owner	..	..	..	..	..	..	..	3
Want of marking, lettering or numbering	..	..	..	..	..	..	..	9
Painting of cabins	..	..	..	..	..	..	..	8
Repairs to cabins	..	..	..	..	..	..	..	8
Total infringements	..	..	..	..	..	..	..	<u>52</u>

Five of the boats which have been inspected since infringements were complained of were found to have been put in order. In a number of instances owing to change of ownership, the certificates were found to be absent on first inspection, but on subsequent inspection this infringement had been remedied.

It was not found necessary to institute legal proceedings with regard to any infringement.

Two written Notices relating to infringements were served during the year, and these have been complied with.

A number of verbal notices were given to Masters or Owners who promised compliance, and ten letters were sent to Owners.

There was no case of infectious disease on board any boat during the year.

No boat was detained for cleansing or disinfection during the year.

The number of boats on the Sheffield register on 31st December 1928, was 72, made up as follows :—

(a) Boats believed to be in actual and present use	..	..	..	..	..	..	6
(b) Boats not seen since 1916	..	..	..	..	..	..	14
(c) Boats not seen since 1911	..	..	..	..	..	..	52

No boat was registered during the year.

Visits to the canal during the year totalled 51. The canal was closed between Sheffield and Tinsley for two weeks during the year for repairs to the Tinsley Locks.

The number of persons living on board at the time of inspection was as follows :—

Males over 14 years of age	..	..	..	..	..	..	307
Females over 14 years of age	..	..	..	..	..	..	16
Children between 5 and 14 years of age	..	..	..	..	..	..	42
Children under 5 years of age	..	..	..	..	..	..	44
Total	..	..	..	..	..	..	<u>409</u>

The average number of occupants per boat was 1.7. Of the 239 boats inspected 42 were boats registered under the Merchandise Shipping Acts by the Board of Trade. These boats were found to be in good order, and in compliance with the requirements of the Canal Boats Acts.

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BLACK SMOKE NUISANCE.

A conference between representatives of the Sheffield and Rotherham Corporations was arranged in February, 1927, for the purpose of setting up a Joint Committee under the "Public Health (Smoke Abatement) Act, 1926."

The Committee was duly appointed and from 1st July, 1927, joint action has been taken in respect of smoke nuisances.

Particulars are given below with regard to the work during the year 1928. The particulars include work in the Rotherham area.

Proceedings were taken in fifteen cases as follows :—Seven steel manufacturers, one rolling mill, one flour miller, one brewer, two colliery proprietors and three steam wagon drivers. The results of the proceedings were as follows :—fines were imposed as follows :—£6, £5, £5, £3, and £1 ; in seven cases orders were made with costs ; three cases were dismissed.

**TABLE XXVIII.**—Details of work done by Smoke Inspectors during the year 1928—

Number of observations of chimneys of each one hour	..	..	..	..	..	..	7,084
Average number of minutes of black smoke per hour	..	..	..	..	..	..	2·4
Number of complaints received	..	..	..	..	..	..	87
„ chimneys erected	..	..	..	..	..	..	5
„ chimneys raised	..	..	..	..	..	..	9
„ chimneys demolished	..	..	..	..	..	..	2
„ intimations served	..	..	..	..	..	..	269
„ notices served	..	..	..	..	..	..	77
„ firms visited to advise	..	..	..	..	..	..	392
„ proceedings during the year	..	..	..	..	..	..	15
Total penalties imposed	..	..	..	..	..	..	£20
Average of penalties imposed	..	..	..	..	..	..	£4

#### CONVERSION OF PRIVIES INTO WATER-CLOSETS.

During the year, 213 privies were converted, including 47 abolished where no water-closet was substituted. 28 additional water-closets were provided. The corresponding figures for 1927 were 1598 and 114 respectively.

As a result of the local Act 1928, active steps have been taken for the conversion of trough closets and waste water closets. The result of this action will be specified in my Report on the current year.

The number of sanitary conveniences at 31st December, 1928, was approximately as follows :

(a) Privies with fixed receptacles	..	..	..	..	..	566
(b) Privies with movable receptacles (known as pail closets)	..	..	..	..	..	197
(c) Fresh water closets	..	..	..	..	..	94,240
(d) Waste water closets	..	..	..	..	..	1,537

The work of Conversion of Privies was completed during the year 1928, with the exception of those cases in which, owing to the enormous cost involved in providing adequate drainage or water supply, proceedings were for the time being abandoned. Most of these properties are dairy farms situated outside the built-on areas and are under rural conditions. As opportunity presents advantage is taken of the provisions of the Milk and Dairies Order, 1926 for effecting improvements in sanitary conveniences on dairy farms.

Full particulars with regard to the work will be found in Table XXIX.



TABLE XXIX.—Conversion of Privies into Water Closets.

Year.	Number of Notices served to Convert.	Number of Notices to provide Additional Accommodation.	Number of Premises where Work has been Completed.	Number of Houses involved.	Number of Workshops involved.	Number of Privies converted by Owners and by the Corporation.	Number of Additional Water Closets erected by Owners and by the Corporation.	Cost of Conversions executed by the Corporation.	Cost of Additional Closets erected by the Corporation.	Contributions to Owners in lieu of One-third Cost of Conversions.	Nett Expenditure by Corporation, being One-third Cost or in lieu of One-third Cost of Conversions.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10).	(11)	(12)
1890-1911	8,350	2,712	6,685	42,029	1,097	20,739	4,297	£ 142,885	£ 23,258	£ 31,053	£ 77,463
1912	453	58	482	2,321	25	1,349	117	12,414	997	2,228	6,364
1913	360	47	531	2,586	16	1,589	131	14,012	771	2,092	6,869
1914	676	74	628	2,940	36	1,822	127	20,799	803	3,295	10,173
1915	116	8	572	2,528	19	1,538	78	8,020	151	1,963	4,640
1916	—	—	52	301	1	182	11	169	...	270	321
1917	2	1	21	70	—	46	...	57	...	164	183
1918	6	1	8	43	—	23	1	148	...	44	93
1919	272	109	79	182	2	175	18	10,944	1,183	1,082	4,735
1920	394	220	259	1,070	4	731	136	31,448	3,472	3,457	13,956
1921	191	82	260	1,155	13	802	87	16,904	1,393	4,107	9,742
1922	246	152	263	1,215	21	775	101	18,627	1,008	3,241	9,488
1923	435	186	376	1,380	25	980	73	20,641	1,025	3,269	10,117
1924	913	384	565	2,027	32	1,438	111	34,941	1,875	6,026	17,686
1925	901	243	810	2,570	29	1,993	147	34,848	2,004	7,390	19,095
1926	1016	262	902	2,373	30	1,820	167	28,672	1,762	6,821	16,422
1927	343	126	759	2,033	20	1,598	114	16,480	643	6,585	11,984
1928	65	23	89	213	1	213	28	790	44	663	876

Nett Expenditure to 31st March, 1929, out of borrowed money	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	£ 206,004
Amount raised in the Rate since the beginning of the Conversion Scheme	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14,203
Unexpended borrowing power at 31st March, 1929	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	220,207
																						44,396

N.B.—The figures in Column 7, 1923 onward, include Privies abolished where no water-closet substituted, as follows :—1923, 66 ; 1924, 73 ; 1925, 217 ; 1926, 286 ; 1927, 256 ; 1928, 47.

The figures given in the last four columns of the table have been furnished by the City Treasurer. They refer to the financial year ended 31st March—three months later than the year to which the other figures refer.

## FACTORIES AND WORKSHOPS.

85 Workshops were added to the Register during 1928 and 48 were struck off.

The numbers on the Register at 31st December are set out below together with the number for the preceding year.

								1927		1928
Bakehouses and confectioners, including factory bakehouses								434	..	465
Tailors, dressmakers and milliners .. .. .								247	..	238
Metal workers .. .. .								346	..	346
Wood workers .. .. .								152	..	162
Hand Laundries .. .. .								16	..	18
Restaurant Kitchens .. .. .								61	..	59
Miscellaneous shops .. .. .								224	..	229
Total workshops on register								1,480	..	1,517

During the year work was carried out at 22 factories and 8 workshops as follows :—Trough closets abolished 26 ; Pail closets abolished 8 ; Privies abolished 3 ; additional water closets provided 75 and drains reconstructed 23.

The usual table with regard to inspections and defects found is given below :—

**TABLE XXX.**—*Factories, Workshops and Workplaces.*

Premises	Number of		
	Inspections	Written Notices	Occupiers Prosecuted
Factories( including Factory Laundries)	1356	134	...
Workshops (including Workshop Laundries)	1816	124	3
Workplaces ... ..	231	60	...
Total ... ..	3403	318	3

Particulars	Number of Defects			Number of offences in respect to which Prosecutions were instituted
	Found	Remedied	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Acts :—</i>				
Want of cleanliness... ..	112	100	...	...
Want of ventilation ... ..	2	2	...	...
Overcrowding ... ..	...	...	...	...
Want of drainage of floors ... ..	1	1	...	...
Other nuisances ... ..	66	62	...	...
Sanitary Accommodation—insufficient ... ..	16	10	...	...
unsuitable or defective	45	40	...	...
not separate for sexes	11	9	...	...
<i>Offences under the Factory and Workshop Acts :—</i>				
Illegal occupation of underground bakehouse (s. 101)	3	3	...	...
Other offences ... ..	62	52	...	3
Total ... ..	318	279	...	3

## OFFENSIVE TRADES.

## REPORT OF THE HEAD WORKSHOPS INSPECTOR ON FISH AND CHIP SHOPS IN SHEFFIELD.

The following work was carried out in connection with the fish frying trade prior to the work being transferred to the superintendent inspectors :—

Visits made	..	..	..	..	..	..	..	..	349
Defects found	..	..	..	..	..	..	..	..	50
Dirty premises and utensils	..	..	..	..	..	..	..	..	27
Defective ventilation of shops	..	..	..	..	..	..	..	..	2
Defective drainage of yards and sheds	..	..	..	..	..	..	..	..	3
Impervious covering of floors and counters	..	..	..	..	..	..	..	..	4
Improved and new cooking ranges	..	..	..	..	..	..	..	..	10
Unsatisfactory storage of refuse	..	..	..	..	..	..	..	..	3
Structural defects	..	..	..	..	..	..	..	..	1

## ICE CREAM TRADE.

402 visits were made to premises where ice cream was being made and sold. Copies of the regulations were left with the occupiers, and 55 letters were sent calling attention to certain defects.



PREVENTION AND TREATMENT OF TUBERCULOSIS.

(REPORT BY JOHN RENNIE, M.D., D.P.H., Tuberculosis Medical Officer.)

The number of primary notifications of Tuberculosis of the Lung received during 1928 was 1844 and Other Forms of Tuberculosis 201, giving an incidence rate per 1,000 of the population of 3·58 for Tuberculosis of the Lung, and 0·39 for Other Forms of Tuberculosis.

Table XXXI shows the number of new cases notified, deaths, and non-notified deaths at the various age periods.

TABLE XXXI.

Age-periods	TUBERCULOSIS											
	Notifications (New Cases)				Deaths				Non-notified Deaths			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
— 1	...	...	6	2	...	...	5	3	...	...	1	...
— 5	27	21	29	24	4	1	11	12	2	...	8	7
—10	295	230	20	26	1	1	8	7	...	...	3	1
—15	128	95	16	17	3	2	9	4	...	1	4	2
—20	109*	85	8	8	17	22	5	4	...	...	4	2
—25	86	112	4	8	20	23	3	3	3	1	1	1
—35	122	125	7	8	42	35	8	3	2	...	1	2
—45	102	60	5	...	51	23	1	...	3	2	1	...
—55	110	38	1	4	67	12	2	5	2	...	...	1
—65	60	21	4	1	35	8	3	1	4	...	3	...
+65	18	...	2	1	15	2	...	1	4	...	...	1
TOTALS ...	1057*	787	102	99	255	129	55	43	20	4	26	17

\* Including one military case.

The policy of delaying notification until the finding of tubercle bacilli in the sputum is quite wrong, as we know that the percentage of cases which show permanent arrest when the disease has reached this stage is exceedingly small.

In 382 of the 1,844 cases of Tuberculosis of the Lung, tubercle bacilli were found in the sputum, and the advanced nature of the disease when it has reached the infectious stage is well shown by the fact that 90 of these 382 cases died before the end of the year. These infectious cases, therefore, cannot be considered early Tuberculosis from any point of view.

The number of notifications received is not a criterion of our position as regards Tuberculosis. The principal point is the proportion of cases notified in the early and non-infectious stage of the disease, and if a diagnosis is made at this stage, and treatment given, in a very large proportion of the cases the disease will become permanently arrested. In 20·7 per cent. of the 1928 notifications tubercle bacilli were found in the sputum. A large proportion of the remaining 79·3 per cent. of the cases were notified in the early and curable stage of the disease.

Our work is, therefore, directed towards a decrease in the number of infectious cases amongst the primary notifications, and establishing a diagnosis of Tuberculosis in the earliest stage of the disease.

The total number of notified cases on the Register on December 31st, 1928, was 5,067. Of these 1134 (including nine children under 15 years of age) were infectious cases, i.e., cases in which tubercle bacilli have been found in the sputum at some period of the illness. No case which at any time has been found to be infectious has so far been cancelled.

93·11 per cent. of the cases of Tuberculosis of the Lung notified during the year were examined by the Dispensary Staff. This figure shows that the patients are anxious to receive the treatment provided by the municipality. Of the remaining 127 cases, 36 were receiving treatment in Institutions other than Corporation Institutions at the time of notification, and of the other 91 cases 38 did not desire treatment, 51 died prior to or within 14 days of notification and two left the City.

The primary investigation of all notified cases is carried out by the Male Inspectors.

The Women Inspectors re-visit the homes of the notified cases of Tuberculosis of the Lung, and make reports to the Tuberculosis Medical Officer, thus keeping him in touch with the home conditions of patients whether they are attending the Dispensary or not.

The total number of such visits paid during the year was 14,769. The Tuberculosis Medical Officer receives periodical reports on the visits made by the Women Inspectors, and reviews the whole of the cases on their visiting lists.

The number of deaths from Tuberculosis of the Lung of Sheffield residents occurring in the City during the year was 368, which is equal to 19·96 per cent. of the notifications received. It will be noticed that this figure bears a close relation to the percentage of notifications in which tubercle bacilli were found in the sputum, namely, 20·72. To this number must be added 16 deaths of Sheffield residents occurring outside the City.

The Death-rate for Tuberculosis of the Lung is 0·745 per 1,000 of the population, and for Other Forms of Tuberculosis is 0·190, giving a total Death-rate for the City for All Forms of Tuberculosis of 0·935.

The Death-rate steadily declined each year from 1922 to 1927. There were 16 more deaths recorded from Tuberculosis of the Lung during 1928 than in 1927. The Respiratory Death-rate for 1928 is 0·745 per 1,000, and is still lower than the Death-rate for England and Wales.

Considering the various adverse factors of a great industrial city like Sheffield, this figure must be considered very satisfactory.

**TABLE XXXII.**—*Deaths from Tuberculosis of the Lung occurring during 1928, divided into sex and age groups, showing whether sputum examined and result.*

AGE PERIODS	Sputum examined				Sputum not examined		TOTALS	
	Tubercle Bacilli found		Tubercle Bacilli not found					
	Males	Females	Males	Females	Males	Females	Males	Females
Under 1 year ...	...	...	...	...	...	...	...	...
1 and under 5 years ...	...	...	2	...	2	1	4	1
5 „ 15 „ ...	2	1	2	2	...	...	4	3
15 „ 25 „ ...	32	37	1	4	4	3	37	44
25 „ 45 „ ...	75	47	4	4	9	6	88	57
45 „ 65 „ ...	84	11	4	3	6	5	94	19
65 years and upwards ...	8	1	1	...	6	1	15	2
TOTALS ...	201	97	14	13	27	16	242	126

Table XXXII shows that the diagnosis was confirmed by tubercle bacilli being demonstrated in the sputum in 80·98 per cent. of the cases.

It is very desirable for statistical purposes that the sputum of every case, even though advanced, should be examined.

TABLE XXXIII shows the length of time between notification and death of the 368 deaths of Sheffield residents occurring in the City.

**TABLE XXXIII.**—Deaths from Tuberculosis of the Lung among Sheffield residents occurring in the City during 1928,  
divided into age periods, showing length of time between notification and death.

Age Periods.	Died prior to notification.	Period between Notification and Death.												
		Under 1 month	1 month & under 2 months	2 months & under 3 months	3 months & under 4 months	4 months & under 6 months	6 months & under 1 year	Total under 1 year	1 year & under 2 years	2 years & under 3 years	3 years & under 4 years	4 years & under 6 years	6 years and over	Total Deaths.
Under 1 year ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1 and under 5 years	2	3	...	...	...	...	...	5	...	...	...	...	...	5
5       "       15 "	1	2	2	1	...	...	...	6	...	...	...	...	1	7
15       "       25 "	4	8	10	3	5	6	9	45	12	11	5	2	6	81
25       "       45 "	7	21	2	6	4	3	22	65	22	12	7	16	23	145
45       "       65 "	6	26	6	7	2	4	8	59	16	10	8	9	11	113
65 years and upwards	4	2	4	2	1	...	1	14	1	1	1	...	...	17
TOTALS ...	24	62	24	19	12	13	40	194	51	34	21	27	41	368
PERCENTAGES ...	6·52	16·85	6·52	5·16	3·26	3·53	10·87	52·72	13·86	9·24	5·71	7·34	11·14	100



It is seen that 23·37 per cent. died before or within one month of notification, and 52·72 per cent. of the total deaths occurred within one year. The percentage dying prior to, or within one month of notification, is still large. It must be recognised, as regards tuberculosis, that in a certain proportion of the cases the disease runs a rapid course.

Of the 41 cases, or 11·14 per cent., who had been notified for six years or over, seven lived six years, seven lived seven years, four lived eight years, three lived nine years, four lived ten years, three lived eleven years, four lived twelve years, three lived thirteen years, two lived fifteen years, two lived sixteen years, one lived twenty years, and one lived twenty-three years. In 21 of the 41 cases who lived six years and over after notification, tubercle bacilli had been found in the sputum at least five years previously, viz., in one case, five years previously, in five cases six years previously; in three cases seven years previously; in two cases eight years previously; in two cases nine years previously; in two cases ten years previously; in two cases eleven years previously; in one case, twelve years previously; in one case thirteen years previously; in one case sixteen years previously; and in one case twenty years previously.

The Dispensary, situate in Queen's Road, is open on week-days from 9.0 a.m. to 5.0 p.m., except on Saturdays, when it is open from 9.0 a.m. to 12.30 p.m., and patients are seen on Mondays Wednesdays and Thursdays in the morning and afternoon, on Tuesdays and Fridays in the afternoon, and on Saturday mornings. There are also two evening sessions (Tuesday and Friday), from 6.0 p.m. to 8.0 p.m., for the convenience of patients who are working. There is no branch Dispensary.

During the year I was assisted by Dr. N. Keating, Dr. J. R. Liddell, Dr. J. Hay Campbell, Dr. F. Barnes, Dr. A. Meiklejohn, (resigned), and Dr. T. S. Townsend, and Dr. J. A. R. Paterson.

The Staff consisted of five Male Inspectors, two Male Clerks, two Female Clerks, two Junior (Male) Clerks, and five Female Clerk-attendants. One Inspector acts as Radiographer, and a second does laboratory work.

The revisiting of the notified cases is carried out by the Women Inspectors. It is estimated that the whole time of five Inspectors is taken up by this work.

#### PUBLIC HEALTH (PREVENTION OF TUBERCULOSIS) REGULATIONS, 1925.

No action was taken under the above Regulations with regard to tuberculous employees in the Milk Trade.

#### PUBLIC HEALTH ACT, 1925, SECTION 62.

No action was taken under this Section with regard to compulsory removal to hospital.

#### ATTENDANCES AT THE DISPENSARY.

Patients who attend the Dispensary may be divided into (a) Old Cases and (b) Cases seen for the first time.

#### OLD CASES—NOTIFIED.

The total number of notified cases who attended the Dispensary for treatment and supervision during the year was 5,506, and on December 31st, 1928, there remained on treatment and supervision 4,223. In addition 1,749 cases remained on General Supervision. The total number of attendances of notified cases made during the year was 39,212.

Every effort is made by the Dispensary Staff to keep in touch with the notified cases.

#### NEW CASES.

Table XXXIV. gives particulars of the cases at the time of their visit to the Dispensary and the result of the primary examination arranged under three headings, viz., (a) Cases notified prior to their first attendance at the Dispensary; (b) "Suspects"; (c) "Contacts."

**TABLE XXXIV.**—*Giving particulars of new cases examined during year and result of primary examination.*

SEX AND AGE PERIODS	(a) Notified Cases	(b)—“Suspects.”			(c)—“Contacts.”		
	Number examined	Number examined	Put on Observation	Found not Tuber- culous	Number examined	Put on Observation	Found not Tuber- culous
<b>ADULTS (15 years and upwards)—</b>							
Males ... ..	275	822	792	30	510	131	379
Females ... ..	207	662	637	25	681	182	499
<b>TOTAL ADULTS ... ..</b>	<b>482</b>	<b>1,484</b>	<b>1,429</b>	<b>55</b>	<b>1,191</b>	<b>313</b>	<b>878</b>
<b>SCHOOL CHILDREN (5 years and under 15)—</b>							
Males ... ..	67	524	492	32	454	210	244
Females ... ..	58	410	389	21	509	205	304
<b>TOTAL SCHOOL CHILDREN ...</b>	<b>125</b>	<b>934</b>	<b>881</b>	<b>53</b>	<b>963</b>	<b>415</b>	<b>548</b>
<b>INFANTS (under 5 years)—</b>							
Males ... ..	3	52	40	12	103	34	69
Females ... ..	5	49	45	4	114	34	80
<b>TOTAL INFANTS ... ..</b>	<b>8</b>	<b>101</b>	<b>85</b>	<b>16</b>	<b>217</b>	<b>68</b>	<b>149</b>
<b>TOTAL ADULTS, SCHOOL CHILDREN AND INFANTS ...</b>	<b>615</b>	<b>2,519</b>	<b>2,395</b>	<b>124</b>	<b>2,371</b>	<b>796</b>	<b>1,575</b>

Particulars of the source of the 2,519 “Suspects” were as follows :—

Private Doctor	School Medical Department	Pensions Board	Voluntary Hospitals	Maternity and Child Welfare Centre	Own request	Total
1,941	384	5	177	7	5	2,519

The large figure of 2,519 sent to the Dispensary for diagnosis shows that the medical profession in Sheffield continue to make full use of the Dispensary. In 87·04 per cent. of the notifications for the year the patients were sent to the Dispensary prior to notification. It is in this way that we find our early and curable cases. It is gratifying to find that the medical profession in Sheffield recognise the importance of early diagnosis, and to know that the co-operation between all members of the medical profession and the Dispensary is so good.

The ultimate diagnosis of these suspicious cases often entails observation for long periods, and, in many cases, residence in the observation beds in the Sanatoria.

Cases which are diagnosed in the General Hospitals are always treated as urgent cases, and are admitted to Sanatorium without delay.

The number of attendances at the Dispensary made by “Suspects” during 1928 was 11,835.

During the year 120 patients were examined at home in consultation with private medical practitioners.

“CONTACTS.”—2,371 “Contacts” from the homes of notified cases were examined, and of these it was found desirable to retain 33·57 per cent. for further observation and treatment.

#### PATIENTS OF SCHOOL AGE.

As in former years, the work of the Tuberculosis Dispensary amongst tuberculous children has been carried on in close co-operation with the School Medical Department. The extra

sanatorium beds provided have added much to the value of the preventive work amongst school children.

The School Medical Officers refer all suspicious cases to the Dispensary for diagnosis, and the responsibility for diagnosis and notification rests with the Tuberculosis Officer.

The names of all children of school age who are known to have been exposed to infection in their homes are supplied to the School Medical Officer, so that he may observe them closely during their school life. If any indication of Tuberculosis is observed amongst these children they are immediately referred to the Tuberculosis Dispensary. In this way the School Medical Officer is kept in touch with a large proportion of the children who are known to have been exposed to infection.

The greater part of the work at the Dispensary on Wednesday and on Saturday morning is devoted to children of school age, and one of the Assistant School Medical Officers attends each Session on Wednesday.

During the year 1928, 16,511 attendances (exclusive of new cases) were made by school children, 11,764 by notified cases, and 4,747 by observation cases.

Twenty-eight places at the Whiteley Wood Open-Air School, and twenty-six places at the Springvale House Open-Air School, were reserved for children selected by the Tuberculosis Officer.

Tubercle Bacilli were found in the sputum of seven children, whose names were, therefore, taken off the school registers.

It will be observed from these figures that a large amount of work is being done among the school children of Sheffield, and I feel confident that this is the most encouraging part of our work, and is likely to be favourably reflected in our future tuberculosis results.

TOTAL ATTENDANCES.—The number of attendances at the Dispensary during 1928 was 59,277, which includes 2,725 attendances for ultra violet light treatment.

#### EXAMINATION OF SPUTA.

During the year 3,671 specimens of sputa were examined, 666 at Crimicar Lane Sanatorium, and 3,005 at the Dispensary. Of these 3,671 specimens 790 were found to contain typical tubercle bacilli.

#### X-RAY DEPARTMENT.

2,360 Skiagrams were taken during the year, as compared with 2,044 during 1927 and 1,709 during 1926. A first-class skiagram is not only valuable as a permanent record of the condition of a chest, but is so useful in diagnosis that it may now be considered indispensable. It is now the routine practice to take an X-ray film of the chest of all adult cases who have either a negative sputum or no sputum.

#### INSTITUTIONAL TREATMENT.

It is pleasing to record that the number of beds allocated for the treatment of all Forms of Tuberculosis in the City of Sheffield appears to have reached a maximum figure, and, fortunately, long waiting lists for institutional treatment are a thing of the past.

The total number of beds available for the treatment of Respiratory Tuberculosis is as follows :—

Crimicar Lane Sanatorium	..	..	..	..	..	108 males.
Moor End Sanatorium ..	..	..	..	..	..	43 females.
Winter Street Hospital ..	..	..	..	..	..	48 males.
"                  "	..	..	..	..	..	58 females.
Nether Edge Sanatorium	..	..	..	..	..	66 men.
"                  "	..	..	..	..	..	47 women.
"                  "	..	..	..	..	..	74 boys.
"                  "	..	..	..	..	..	60 girls.



The following Table shows the number of admissions, discharges, and deaths at the various Institutions :—

TABLE XXXV.

	Admissions	Discharges	Deaths	Number remaining at Dec. 31st, 1928
Commonside Sanatorium—				
Adult Females... ..	148	144	10	37
Girls ... ..	14	6	—	4
Crimicar Lane Sanatorium—				
Adult Males ... ..	501	470	48	81
Boys of School Age ... ..	50	28	1	23
Winter Street Hospital—				
Adult Males ... ..	190	182	21	27
„ Females... ..	254	239	20	35
Boys ... ..	120	98	3	19
Girls ... ..	104	98	2	21
Nether Edge Sanatorium—				
Adult Males ... ..	316	275	40	64
„ Females... ..	325	311	16	45
Boys ... ..	489	494	...	68
Girls ... ..	412	407	...	56
	2,923	2,752	161	480

The following table shows the classification of cases received in the various Sanatoria during the year.

This shows that a large proportion of the cases were admitted in the early stage of the disease, viz., 47·1 per cent. of the men, 53·0 per cent. of the women, and 71·2 per cent. of the children.

The early diagnosis appears to me to be the most important factor in explaining the low Death-rate for the City of Sheffield.

#### REPORTS, ETC., TO MINISTRY OF PENSIONS, AND TO THE REGIONAL MEDICAL OFFICER OF THE MINISTRY OF HEALTH.

During the year, 301 certificates and reports with regard to ex-service men were furnished to the Ministry of Pensions ; and 260 reports on the condition of patients were made at the request of the Regional Medical Officer of the Ministry of Health.

#### AFTER CARE.

The organisation with regard to after-care is carried on through the Dispensary. Unsatisfactory cases are reported to the Hospitals Sub-Committee, who consider the cases and instruct the Tuberculosis Medical Officer to deal with them. Shelters are lent to infectious cases, but it is found in Sheffield that the home surroundings are such that in very few cases is it possible to find adequate accommodation for a shelter. This form of isolation in Sheffield is of very little practical value. Beds and mattresses are lent to infectious cases who are unable to provide for themselves a separate bed, and during the year 74 beds and 79 mattresses were lent.

In addition to lending beds and mattresses, the Health Committee decided to lend complete sets of bed-clothing to infectious cases who were unable, owing to their financial circumstances, to procure them.

During the year 28 sets of bed-clothing were lent.

#### HOUSING OF INFECTIOUS CASES.

During the year arrangements were made by the Health Committee with the Estates Committee for twenty-six houses to be allocated to Infectious Cases of Tuberculosis whose families were living under overcrowded and unsatisfactory conditions.

In connection with this Scheme, the Chairman of the Hospitals Sub-Committee (Mr. Councillor J. A. Longden) and the Tuberculosis Medical Officer, visited a large number of homes which were reported as unsatisfactory before submitting the cases to the Special Section of the Hospitals Sub-Committee appointed to deal with the re-housing of Infectious Cases.

Altogether twenty-three families were re-housed under the Scheme.

The "Contacts" of these families are all examined at the Dispensary and arrangements are made for their re-examination at least once a year.

The Chairman of the Hospitals Sub-Committee has taken a special interest in the work and along with the Tuberculosis Medical Officer has re-visited a large number of the families after re-housing.

The most striking feature of the work has been the improvement noted in the health of the children.

TABLE XXXVI.—INSTITUTIONAL TREATMENT OF TUBERCULOSIS, YEAR ENDED DECEMBER 31ST, 1928.

	WINTER STREET HOSPITAL.				CRIMICAR LANE SANATORIUM.			MOOR END SANATORIUM.			NETHER EDGE SANATORIUM.				TOTALS.			GRAND TOTALS.
	Men	Women	Children	Total	Men	Children	Total	Women	Children	Total	Men	Women	Children					
Classification of Cases received during the year ... ..  PULMONARY.	190	254	224	668	501	50	551	148	14	162	316	325	901	1542	1007	727	1,189	2,923
	26	57	84	167	85	8	93	22	5	27	63	66	241	370	174	145	338	657
	90	120	138	348	247	40	287	77	9	86	137	188	660	985	474	385	847	1,706
	52	57	2	111	135	1	136	41	...	41	75	56	...	131	262	154	3	419
	22	20	...	42	34	1	35	8	...	8	41	15	...	56	97	43	1	141
PERCENTAGES.																		
1. Observation	13.7	22.4	37.5	25.0	17.0	16.0	16.9	14.9	35.7	16.7	19.9	20.3	26.7	24.0	17.3	19.9	28.4	22.5
2. Early	47.4	47.2	61.6	52.1	49.3	80.0	52.1	52.0	64.3	53.1	43.4	57.8	73.3	63.9	47.1	53.0	71.2	58.4
3. Intermediate	27.4	22.4	0.9	16.6	26.9	2.0	24.7	27.7	...	25.3	23.7	17.2	...	8.5	26.0	21.2	0.3	14.3
4. Advanced	11.6	7.9	...	6.3	6.8	2.0	6.3	5.4	...	4.9	13.0	4.6	...	3.6	9.6	5.9	0.1	4.8



## WORK OF THE MALE TUBERCULOSIS INSPECTORS.

1. *Tuberculosis of the Lung—New Cases.*

Cases investigated—particulars obtained	...	...	...	...	...	1,809
„ no particulars available	...	...	...	...	...	6
(Principally cases in Institutions who are usually resident in Common Lodging Houses).						
Special cases—not visited	...	...	...	...	...	3
Cases investigated (not notified prior to death)	...	...	...	...	...	27
Cases not visited (transferable deaths from other districts)	...	...	...	...	...	6
						— 1,851

2. *Other Forms of Tuberculosis—New Cases.*

Cases investigated—particulars obtained	...	...	...	...	...	160
„ not notified prior to death	...	...	...	...	...	44
Cases not visited (transferable deaths from other districts)	...	...	...	...	...	1
						— 205

*Total New Cases—All Forms of Tuberculosis...* 2,056

*Periodic Re-visits to Positive Cases* ... .. 359

## Additional visits—

(a) For further investigation	...	...	...	...	...	1,747
(b) Re-admission to Hospital	...	...	...	...	...	...
(c) For disinfection after removals	...	...	...	...	...	298
(d) For disinfection after admission to Hospital	...	...	...	...	...	1,629
(e) For disinfection after death	...	...	...	...	...	177
						— 3,851

Total... .. 4,210

Number of rooms sprayed ... .. 9,575

This figure includes 1,223 houses where every room was disinfected after death or removal of the patient.

Number of Reports to District Inspectors *re* defects in houses ... 177

Number of Reports to Workshop Inspector *re* cases employed in Workshops ... 83

Cases left City and lost through removal—

(a) Number of Cases left the City ... .. 71

(b) Number of Cases lost sight of—new address not known ... —

Total... .. 71

## VISITATION OF CASES BY THE WOMEN INSPECTORS.

Number of visits to notified Cases ... .. 12,512

Number of visits to notified Cases (ex-service men) ... .. 77

Number of visits on discharge from Sanatorium *re* home conditions ... 2,180

Total visits to cases ... .. 14,769

REPORT ON NON-PULMONARY FORMS OF TUBERCULOSIS FOR THE YEAR 1928, by O. LEE PATTISON, M.B., B.S., M.R.C.S., L.R.C.P., Surgical Tuberculosis Officer and Medical Superintendent King Edward VII Hospital.

The number of notified cases and the death rate of the various types of non-pulmonary forms of tuberculosis is shown in Table XXXVII.

TABLE XXXVII.

	Number of Cases Notified	Number of Deaths	Death Rate per Million Population
Nervous (chiefly Meningitis) ... ..	34	51	99
Intestines and Peritoneum ... ..	26	14	27
Vertebral (Spine) ... ..	13	5	10
Bones, other than Vertebrae ... ..	9	3	6
Joints ... ..	42	4	8
Skin ... ..	4	...	...
Genito-urinary ... ..	4	6	11
Other ... ..	26	15	29
Total ... ..	158	98	190

Arrangements made by the Municipality for dealing with the non-pulmonary forms of tuberculosis may be considered under two headings.

1.—INSTITUTIONAL TREATMENT

2.—OUT-PATIENT SUPERVISION.

(1) INSTITUTIONAL TREATMENT.

THE KING EDWARD VII. HOSPITAL.

The majority of cases of non-pulmonary forms of tuberculosis occur in children, these are treated in this Institution. Owing to the early stage of the disease at which it is now possible to begin treatment, the period of stay in Hospital has been reduced during the last few years.

As a result beds have been available for patients from areas outside Sheffield. With the sanction of the Ministry of Health the local authorities concerned pay the full cost of maintenance, including service of debt and educational charges for the beds occupied by their patients. This is on the understanding that only beds shall be used by them which are not required for Sheffield children.

During 1928 the following fresh cases were treated in the King Edward VII. Hospital.

TABLE XXXVIII.

Part affected	Male	Female	Total
Vertebrae (Spine) .. ..	8	13	21
Hip Joint .. ..	15	24	39
Knee Joint .. ..	10	6	16
Elbow Joint .. ..	2	0	2
Ankle Joint .. ..	2	0	2
Lymphatic Glands .. ..	8	10	18
Lupus (Skin) .. ..	3	0	3
Peritoneum .. ..	1	6	7
Other parts .. ..	10	14	24
*Observation Cases .. ..	8	7	15
TOTALS .. ..	67	80	147

\*Observation cases are those in which the diagnosis was uncertain and which proved later to be non-tuberculous.

The average duration of stay in Hospital was 275·1 days.

#### INSTITUTIONAL TREATMENT FOR ADULTS.

Adult patients with bone or joint tuberculosis are treated in Nether Edge Hospital, under the supervision of the Surgical Tuberculosis Officer. The scope of this work has increased during the year, a considerable number of plaster-of-Paris and other surgical appliances have been applied and the equipment necessary for treating these cases has become much more adequate.

Minor operations are performed when necessary.

The results of the treatment provided have been most encouraging in the majority of instances and show that the work is well worth doing.

#### II.—OUT-PATIENT SUPERVISION.

Examination and supervision of out-patients continues to be held at the Tuberculosis Dispensary. Here new patients are seen, and after care of patients discharged from the Tuberculosis Hospitals is undertaken.

New patients were sent from the following sources :—

Private Medical practitioners	..	..	..	..	41
Tuberculosis Medical Officer	..	..	..	..	93
School Medical Department	..	..	..	..	44
Royal Hospital	..	..	..	..	8
Royal Infirmary	..	..	..	..	6
Children's Hospital	..	..	..	..	18
Tuberculosis Officer W. R. County Council	..	..	..	..	38
Other sources	..	..	..	..	30
TOTAL	..	..	..	..	<u>278</u>

There were 179 new Sheffield patients, these were :—23 Men ; 22 Women ; 70 Boys ; 64 Girls ; (Adults 45, Children 134).

The disease occurred in the following situations :—

						Males.		Female.
Spine	..	..	..	..	..	9	..	13
Hip Joint	..	..	..	..	..	9	..	14
Knee Joint	..	..	..	..	..	8	..	11
Ankle Joint	..	..	..	..	..	3	..	4
Elbow Joint	..	..	..	..	..	2	..	0
Shoulder Joint	..	..	..	..	..	2	..	1
Lymphatic Glands	..	..	..	..	..	40	..	33
Lupus (Skin)	..	..	..	..	..	4	..	3
Sacro-iliac Joint	..	..	..	..	..	1	..	1
Bones	..	..	..	..	..	5	..	2
Multiple Lesions	..	..	..	..	..	1	..	0
Peritoneum	..	..	..	..	..	8	..	4
Epididymis	..	..	..	..	..	1	..	0
TOTALS	..	..	..	..	..	<u>93</u>	..	<u>86</u>

In addition there were 61 new cases sent for examination who were found to be non-tuberculous.

A number of X-ray photographs were taken at the request of the West Riding County Council, for which the sum of £39/7/6 has been received.

The total number of attendances at the department in 1928 was 2,923.



During the year an evening session one night a week was started for the benefit of patients who were unable to attend the ordinary afternoon sessions on account of hours of work or from other causes. A number of patients have availed themselves of the facilities so provided.

#### ULTRA-VIOLET LIGHT TREATMENT.

Ultra-Violet Light Treatment has been continued during the year, both at the King Edward VII Hospital and at the Tuberculosis Dispensary.

The patients are carefully selected by the Surgical Tuberculosis Officer and the treatment is undertaken under his supervision.

Six Sessions per week are held at the Dispensary, at which there have been 2,317 attendances. Owing to the use of "cored-carbons" the time of exposure necessary and therefore the cost per patient has been considerably reduced.

The results obtained by this means of treatment have confirmed the conclusions reached by previous experience extending over the past 14 years.

In some types and with certain degrees of activity of the disease ultra-violet light treatment is indicated and proves definitely beneficial, but in other instances it should be avoided as in them it appears to be useless or even harmful.

At the King Edward VII Hospital further investigation has been undertaken in the use of foods irradiated by Ultra-Violet Light, this has been found beneficial in some cases, and may prove to be valuable as a source of vitamin D when other substances containing it (such as cod liver oil) are not tolerated by the patient.

#### LUPUS CLINIC.

During the year a clinic for the treatment of lupus has been started. One afternoon and one evening session are held weekly.

In addition to general radiations with ultra-violet light, local treatment with a Kromayer Lamp is given. Since September 408 attendances have been made.

Photographic records are being kept.

Up to the present time the results obtained have been very gratifying.

## MATERNITY AND CHILD WELFARE.

### WOMEN INSPECTORS' WORK—

**TABLE XXXIX.**

	1926.	1927.	1928.
Visits with regard to Houses-let-in-lodgings .. ..	774 ..	549 ..	415 ..
Visits with regard to Births .. ..	45,161 ..	31,154 ..	30,880 ..
Visits to Children 1 to 5 years .. ..	— ..	14,760 ..	20,270 ..
Visits with regard to School complaints .. ..	23 ..	32 ..	18 ..
Visits with regard to Tuberculosis—			
Dispensary Cases .. ..	13,214 ..	14,870 ..	14,692 ..
Surgical Clinic Cases .. ..	1,081 ..	1,594 ..	1,324 ..
Discharged Soldiers .. ..	97 ..	73 ..	77 ..
Visits to Midwives .. ..	194 ..	253 ..	138 ..
Visits with regard to Puerperal Fever .. ..	91 ..	288 ..	275 ..
Visits with regard to Ophthalmia Neonatorum .. ..	346 ..	285 ..	338 ..
Vists to Expectant Mothers .. ..	162 ..	261 ..	383 ..
Visits with regard to Measles .. ..	46 ..	13 ..	54 ..
Visits with regard to Pneumonia .. ..	8 ..	17 ..	9 ..
Visits with regard to Small Pox contacts .. ..	63 ..	2,749 ..	227 ..
Visits for other reasons .. ..	2,216 ..	1,895 ..	1,996 ..
Cases reported to N.S.P.C.C. .. ..	13 ..	10 ..	14 ..
Cases reported to S.Q.V.J.N.A. .. ..	1 ..	1 ..	2 ..
Nuisances Notices served.. ..	42 ..	33 ..	30 ..

### MIDWIVES ACTS 1902 AND 1918.

At the end of the year 1928 there were 77 midwives in practice on their own account in Sheffield. Of this number 68 were hospital trained midwives and 9 were untrained midwives who were in *bona-fide* practice as such at the time of the passing of the 1902 Act.

There were 138 visits of inspection paid to midwives at their own homes during the year, and 92 midwives were specially interviewed for various reasons connected with their work at the office of the Chief Inspector of Midwives.

Notifications have been received from midwives under certain circumstances, as follows—70 notifications of still birth (37 full time, and 33 premature) ; 764 notifications that the midwife had been obliged to send for medical help, the reasons for sending for medical help, as far as could be ascertained, being as follows :—

- (1) Abnormal Presentations :—Breech, 15 ; Arm, foot or shoulder, 11 ; Transverse, 7 ; Funis, 6 ; Face, 9 ; Right Occipito Posterior, 48. Total, 96.
- (2) Causes affecting the child :—Convulsions, 8 ; Debility, 23 ; Asphyxia, 11 ; Prematurity, 42 ; Spina Bifida, 3 ; Ophthalmia, 65 ; Jaundice, 9 ; Cleft palate, Hare lip, 2 ; Miscellaneous, 67. Total, 230.
- (3) Causes affecting the mother :—Placenta Prævia, 6 ; Ante-partum Hæmorrhage, 20 ; Eclampsia, 5 ; Post-partum Hæmorrhage, 32 ; Rupture of Perineum, 171 ; Contracted pelvis, 27 ; Rigid Os or Perineum, 8 ; Uterine Inertia, 70 ; Adherent Membrane or Placenta, 15 ; Rise of Temperature, 31 ; Miscellaneous, 53. Total, 438.

And 16 notifications that the mother intended to substitute artificial feeding for breast feeding.

PUERPERAL FEVER.

	1927			1928			
	Puerperal Fever		Puerp. Pyrexia	Puerperal Fever		Puerp. Pyrexia	
	Cases	Fatal	Cases	Cases	Fatal	Cases	Fatal
<i>Cases attended by—</i>							
Doctors .. .. .	32	12	26	23	4	23	3
Midwives .. .. .	24	3	8	15	3	15	6
Doctors and Midwives .. .. .	3	—	2	6	3	2	—
Jessop Hospital .. .. .	11	5	62	14	6	39	4
Firth Auxiliary Hospital .. .. .	—	—	—	—	—	1	—
Firvale Hospital .. .. .	3	—	1	3	—	1	—
Royal Infirmary .. .. .	1	1	—	—	—	—	—
Nether Edge Hospital .. .. .	—	—	—	2	1	—	—
Nursing Homes .. .. .	—	—	—	2	—	2	—
Unattended abortions .. .. .	16	9	2	19	9	5	—
Born before arrival .. .. .	2	—	1	—	—	—	—
Illegal operation .. .. .	1	—	—	—	—	1	1
Out of Town cases .. .. .	2	—	1	2	—	9	1
	95	30	103	86	26	98	15

					1927.		1928.
Cases originally notified as Puerperal Fever .. .. .					77	..	67
Do. do. Puerperal Pyrexia .. .. .					121	..	117
					198	..	184
Puerperal Pyrexia subsequently notified as Puerperal Fever .. .. .					18	..	20
Puerperal Fever subsequently notified as Pyrexia .. .. .					—	..	1

(The particulars in the above summary have the necessary alterations).

						1927.		1928.
Cases nursed at home .. .. .						26	..	19
Cases nursed entirely in Hospital .. .. .						74	..	54
Do. do. Nursing Home .. .. .						—	..	1
Cases removed after onset of disease :—								
To Jessop Hospital .. .. .						21	..	3
„ Firth Auxiliary Hospital .. .. .						11	..	73
„ Firvale Hospital .. .. .						64	..	32
„ Royal Hospital .. .. .						1	..	—
„ Lodge Moor Hospital .. .. .						2	..	—
„ Royal Infirmary .. .. .						—	..	1
„ Nursing Homes .. .. .						1	..	1
						200*	..	184

\* The above figure includes 2 cases which were notified in 1926 and for which subsequent notifications were received in 1927.



## OPHTHALMIA NEONATORUM.

						1926.		1927.		1928.
Cases attended by doctors	...	...	...	...	...	26	...	34	...	26
Do. midwives	...	...	...	...	...	94	...	68	...	64
Do. doctors and midwives	...	...	...	...	...	4	...	1	...	2
Jessop Hospital cases	...	...	...	...	...	15	...	2	...	18
Firvale Hospital cases	...	...	...	...	...	2	...	4	...	3
Nether Edge Hospital cases	...	...	...	...	...	—	...	1	...	4
Not stated	...	...	...	...	...	1	...	—	...	—
Unattended	...	...	...	...	...	—	...	2	...	—
Cases carried forward to the following year	...	...	...	...	...	7	...	8	...	11
						<u>149</u>	...	<u>120</u>	...	<u>130</u>
The following cases were brought forward from the previous year and are included in the above summary	...	...	...	...	...	13	...	7	...	8
Totals for year	...	...	...	...	...	<u>136</u>	...	<u>113</u>	...	<u>122</u>
DOCTORS' CASES—							1926.	1927.		1928.
Eyes recovered	...	...	...	...	...	...	23	30		24
Eyes damaged	...	...	...	...	...	...	1	—		1
Blind in one eye	...	...	...	...	...	...	—	1		—
Died from other causes during attack of Ophthalmia Neonatorum	...	...	...	...	...	...	1	2		—
Removed	...	...	...	...	...	...	1	1		1
							— 26	— 34		— 26
MIDWIVES' CASES—										
Eyes recovered	...	...	...	...	...	...	93	63		61
Eyes damaged	...	...	...	...	...	...	—	1		—
Died from other causes during attack of Ophthalmia Neonatorum	...	...	...	...	...	...	1	3		1
Removed	...	...	...	...	...	...	—	1		2
							— 94	— 68		— 64
CASES ATTENDED BY DOCTORS AND MIDWIVES—										
Eyes recovered	...	...	...	...	...	...	4	1		2
							— 4	— 1		— 2
JESSOP HOSPITAL CASES—										
Eyes recovered	...	...	...	...	...	...	14	2		17
Out of town cases	...	...	...	...	...	...	1	—		—
Died from other causes during attack	...	...	...	...	...	...	—	—		1
							— 15	— 2		— 18
FIRVALE HOSPITAL CASES—										
Eyes recovered	...	...	...	...	...	...	—	3		3
Died from other causes during attack of Ophthalmia Neonatorum	...	...	...	...	...	...	1	—		—
Cannot trace	...	...	...	...	...	...	1	—		—
Removed	...	...	...	...	...	...	—	1		—
							— 2	— 4		— 3
NETHER EDGE HOSPITAL CASES—										
Eyes recovered	...	...	...	...	...	...	—	—		4
Removed	...	...	...	...	...	...	—	1		—
								— 1		— 4
NOT STATED—										
Eyes recovered	...	...	...	...	...	...	1	—		—
							— 1	—		—
OUT OF TOWN CASES—										
Results not ascertained	...	...	...	...	...	...	—	—		2
								—		— 2
UNATTENDED—										
Died from other causes during an attack of Ophthalmia Neonatorum	...	...	...	...	...	...	—	2		—
								— 2		—
							<u>142</u>	<u>112</u>		<u>119</u>
Transferred to following year	...	...	...	...	...	...	7	8		11
Total	...	...	...	...	...	...	<u>149</u>	<u>120</u>		<u>130</u>

## MATERNITY CLINIC—

	1926.	1927.	1928.
Total attendances during the year ...	1090	2094	5126
Total attendances from commencement ...	3924	6018	11144
Number of sessions during the year ...	101	126	274
Average attendances at each session ...	11	17	19
Total new cases during the year ...	532	730	1281

## Cases sent by—

## Centre Staff :

Doctors ...	6	14	26
Inspectors ...	84	104	128
Certified Midwives ...	106	187	203
Outside Doctors ...	5	20	51
Outside Midwife ...	1	—	—
Friends ...	186	240	770
Jessop Hospital ...	1	1	1
Nether Edge Hospital ...	—	1	—
Tuberculosis Dispensary ...	3	—	—
M.O.H. ...	—	1	—
Councillor ...	—	1	—
Lady Guardian ...	1	—	—
Registrar ...	1	—	—
Salvation Army ...	2	3	—
British Legion ...	1	—	—
Council of Social Service ...	—	1	—
Attended previously ...	69	44	81
Came unadvised ...	66	113	—
Miscellaneous ...	—	—	22
	<u>532</u>	<u>730</u>	<u>1281</u>

New cases in 1920 ...	127
do. 1921 ...	216
do. 1922 ...	231
do. 1923 ...	256
do. 1924 ...	314
do. 1925 ...	401

## BABY CONSULTATIONS.

Centre.	1926.	1927.	1928.
Total attendances during the year ...	48,307	48,249	53,553
Average weekly attendances during the year ...	929	928	1,050
Total attendances from commencement to the end of the year ...	550,727	598,976	652,529
Number of sessions during the year (excluding Saturday mornings) ...	1,464	1,461	1,450
Average attendance per session (per doctor) excluding Saturday mornings ...	33	33	37
Number of sessions taken by doctors ...	954	953	933
Number of sessions taken by inspectors ...	510	508	517
Total new babies during the year ...	3,825	3,630	4,020
Average of new babies weekly ...	74	70	79
New babies over 1 year ...	425	418	568
New babies under 1 year ...	3,400	3,212	3,452

## ATTENDANCES PER MONTH—

	1926		1927		1928	
	New Cases	Total Attendances	New Cases	Total Attendances	New Cases	Total Attendances
January ... ..	325	3,767	269	3,633	341	4,218
February ... ..	342	3,973	304	3,501	328	4,033
March ... ..	340	4,648	396	4,646	344	4,280
April ... ..	280	3,698	294	3,693	340	4,075
May ... ..	265	3,254	336	4,364	339	4,318
June ... ..	378	4,283	293	3,969	424	4,872
July ... ..	335	4,257	305	4,022	371	5,202
August ... ..	327	4,073	335	4,270	304	4,629
September ... ..	347	4,475	294	4,210	344	4,532
October ... ..	330	4,108	321	4,317	367	5,250
November ... ..	332	4,364	305	4,480	312	4,804
December... ..	224	3,407	178	3,144	206	3,340
	3,825	48,307	3,630	48,249	4,020	53,553

*Woodhouse Branch.*

	1926.	1927.	1928.
Total attendances during the year ... ..	1,421	1,411	1,466
Number of sessions during the year... ..	52	52	52
Average attendances per session ... ..	27	27	28
Total new babies during the year ... ..	153	105	100

*Handsworth Branch—*

Total attendances during the year ... ..	640	710	785
Number of sessions during the year ... ..	26	25	25
Average attendances per session ... ..	25	28	31
Total new babies during the year ... ..	51	60	74

*Cases sent to Hospitals and other Institutions.*

Royal Hospital ... ..	61	65	99
Royal Infirmary ... ..	61	47	50
Children's Hospital ... ..	174	177	238
School Clinic ... ..	23	6	27
Edgar Allen Institute ... ..	28	64	98
Tuberculosis Dispensary ... ..	3	5	3
Jessop Hospital ... ..	2	—	—
	<u>352</u>	<u>364</u>	<u>515</u>



TABLE XL.

SHEFFIELD QUEEN VICTORIA DISTRICT NURSES.

## SUMMARY OF WORK DONE ON BEHALF OF HEALTH COMMITTEE DURING 1928.

	Cases dealt with	Number of Visits.
Pneumonia ... ..	2,088	5,858
Tuberculosis— Medical ... .. 171 Surgical ... .. 104 —————	275	2,149
Diarrhœa— Under 5 years ... ..	5	66
Erysipelas ... ..	10	355
Ophthalmia ... ..	4	129
Whooping Cough— Under 5 years ... .. 66 Over 5 years ... .. 54 Adults ... .. 3 —————	123	258
Measles— Under 5 years ... .. 125 Over 5 years ... .. 55 Adults ... .. 5 —————	185	574
Typhoid Fever ... ..	1	64
Scarlet Fever ... ..	2	56
Encephalitis Lethargica ... ..	14	449
Totals ... ..	2,707	9,958

MATERNITY CLINIC.

(REPORT BY DR. AGNES S. MACINTYRE, M.B., Ch.B.)

The work of the Clinic for 1928 is marked by a great increase in the number of patients who attended—1281 new cases were seen as compared with 730 in 1927. Additional sessions made the average seen per session 19, as compared with 17 for 1927.

	1926.	1927.	1928.
Total attendance during the year .. ..	1,090	2,094	5,126
Total attendance from commencement ..	3,924	6,018	11,144
Number of Sessions during the year .. ..	101	126	274
Average attendance at each session .. ..	11	17	19
Total new cases during the year .. ..	532	730	1,281

The table shewing by whom patients were seen is again interesting :—

Centre Staff :—

Doctors .. .. .	26
Inspectors .. .. .	128
Certified midwives .. .. .	203
Outside doctors .. .. .	51
Friends .. .. .	770
Attended previously .. .. .	81
Miscellaneous .. .. .	22
	<u>1281</u>

A pleasing feature is that 770 new cases came to the Clinic advised by previous patients and friends.

The Inspectors have visited 1,041 cases and have completed the charts :—

- 855 babies were born alive.
  - 750 by normal delivery.
  - 9 by breech delivery.
  - 1 footling delivery.
  - 1 transverse.
  - 93 by instrumental delivery.
  - 1 by Cæsarean section.
- 58 patients miscarried or had a stillbirth.
- 92 mothers were not pregnant.
- 18 could not be traced.
- 18 post-natal cases.

<u>1041</u>
19 out of Sheffield cases.
<u>1060</u>

*Details available re the 58 cases of miscarriage or stillbirth show that :—*

5 were difficult instrumental deliveries ; 5 mothers had albuminuria ; 1 had Glycosuria ; 5 accidents to mother during pregnancy, viz., burn, falls and fright ; 1 foetus was deformed ; 3 were malpresentations ; 1 labour complicated with uterine tumour and malpresentation, (footling) ; 7 were pathological pregnancies ; 9 mothers had anæmia ; 1 epilepsy ; 1 tubercle ; 1 complicated labour necessitating perforation ; 14 cause unknown ; 2 twin pregnancies ; 2 not classified ; 149 cases of previous miscarriage, stillbirth or instrumental delivery were successfully treated during 1928, i.e., as normal confinements.

The Nether Edge Hospital has been in full use during the year, both for actual lying-in and ante-natal treatment.

Thanks are due to Dr. Boyd and Dr. Erwin for their successful share in the work, also the entire Centre staff, especially Mrs. Franks and Miss Martin.

#### NETHER EDGE MATERNITY HOSPITAL.

During the year 239 births took place in the Hospital, the following table shows the number which occurred in each month :—

January, 7 ; February, 6 ; March, 12 ; April, 12 ; May, 9 ; June, 16 ; July, 21 ; August, 31 ; September, 32 ; October, 26 ; November, 31 ; December, 36.

The Hospital was opened on the 3rd March, 1927, and from that date to the 31st December, 1927, the confinements were as follows :—

Jessop Hospital cases	..	..	..	..	..	26
Maternity and Child Welfare cases	..	..	..	..	..	30
						<hr/> 56
						<hr/>

The cases admitted during 1928 were all Maternity and Child Welfare patients, with the exception of one Jessop Hospital case admitted in January.

A number of the 239 cases above mentioned have received ante-natal treatment at the Nether Edge Maternity Hospital.

In 25 instances where the patient was accepted for admission, the application has been cancelled because the births have occurred elsewhere.

Cases sent to various Hospitals from the Maternity Clinic are as follows :—

To the Jessop Hospital—for examination, etc.	..	..	..	72	
for admission	..	..	..	4	
				—	76
To the Royal Hospital	..	..	..	..	10
„ Royal Infirmary	..	..	..	..	5
„ Relieving Officer or Firvale	..	..	..	..	15
„ Tuberculosis Dispensary	..	..	..	..	3
„ Nether Edge Maternity Hospital	..	..	..	..	11
					<hr/>
					120

At the Nether Edge Maternity Hospital during the year there have been :—

8 stillbirths.

1 mother has died.

2 babies have died.

1 case of Puerperal Fever.

3 cases of Ophthalmia Neonatorum (2 notified after discharge).

2 cases of Pemphigus.

Cases on the books at the 31st December, 1928 .. .. . 128



## PREVENTION AND TREATMENT OF VENEREAL DISEASES.

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The Clinics at the Royal Infirmary, Royal Hospital, Jessop Hospital for Women, and Children's Hospital, which were inaugurated in 1917 in accordance with the scheme which was approved by the Local Government Board, continued in full operation during the year 1928.

It will be noted from Table XLI that the new cases treated totalled 1,409, as against 1,288 for the previous year and that there was an increase in the number of attendances of patients. The average number of attendances per case was 29·9, which is slightly below the two previous years' figures. It cannot be too clearly understood that the expenditure on the treatment of Venereal Diseases is wasted unless patients remain under treatment until a permanent cure can be guaranteed. This is the main argument in favour of notification and compulsory treatment of these diseases. At the same time one can see no reason why persons who can afford to do so should not pay the whole or some part of the cost of their treatment.

The total cost of treatment during the year was £6,626 which is the highest since 1923 and is accounted for by the larger number of cases treated.

Table XLII. gives particulars of pathological examinations made in the Bacteriological Laboratory of the University, of specimens sent for diagnostic purposes by medical practitioners residing in the City.

Table XLIII. gives particulars of all the Clinics in connection with the Sheffield scheme, together with a statement of the average number of patients attending during each quarter of the year.

Table XLIV. gives a summary of the returns from the several hospitals with regard to persons dealt with, distinguishing between Sheffield residents and residents of other districts who have come in for treatment. It should be pointed out that, while the latter receive treatment at the expense of the Department, the Department is recouped in the grant from the Ministry of Health, which in the case of the Venereal Disease account is fixed at 75 per cent., whereas in the case of other grant-aided schemes the percentage is 50.

**TABLE XLI.**—*Venereal Diseases.—Cases Treated and Cost of Treatment since 1919.*

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Total Persons dealt with for the first time ...	2,798	2,418	1,967	1,399	1,430	1,403	1,196	1,300	1,288	1,409
Total Persons dealt with ...	4,029	4,876	4,464	3,896	3,747	3,034	2,938	3,089	2,835	2,986
Total Attendances at the Out-patient Clinics ...	28,315	28,370	30,366	27,529	38,013	38,057	35,423	44,305	40,544	42,184
Average number of Attendances per case ...	10·1	11·7	15·4	19·7	26·6	27·1	29·6	33·9	31·5	29·9
Total "In-patient days" of Treatment ...	3,197	2,893	2,044	2,157	2,859	1,779	1,905	1,686	2,351	1,716
Total Cost of Treatment during financial year ended March following year stated ...	£7,919	£9,463	£8,140	£6,720	£6,853	£6,246	£6,293	£6,299	£6,513	£6,626
Average Cost per Person dealt with for the first time	£2/16/7	£3/18/3	£4/2/9	£4/16/1	£4/15/10	£4/9/0	£5/5/3	£4/16/11	£5/1/2	£4/14/1

**TABLE XLII.**—*Venereal Diseases.—Pathological Examinations made in the Bacteriological Laboratory of the Sheffield University during each year since 1919*

Nature of Test.	Number of Tests.									
	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
For detection of Spirochetes—										
For Treatment Centres	5	1	...	2	3	2	2	3	4	13
For Practitioners	7	3	3	6	2	4	2	3	7	5
For detection of Gonococci—										
For Treatment Centres ...	5,119	5,728	5,332	4,079	3,550	3,278	2,829	2,595	2,266	2,172
For Practitioners ...	71	92	201	340	561	598	584	531	572	622
For Wassermann reaction—										
For Treatment Centres ...	2,929	3,492	2,227	1,505	1,528	1,349	1,337	1,178	1,618	1,527
For Practitioners ...	159	151	1,197	1,160	1,459	2,013	2,173	2,386	2,696	2,929
<b>OTHER EXAMINATIONS.</b>										
Gonococcal Complement Fixation Tests—										
For Treatment Centres ...	...	1,226	333	62	3	1	...	...	...	...
For Practitioners ...	...	...	4	2	2	...	...	...	...	...
Cultural Tests—										
For Treatment Centres ...	...	...	...	10	57	4	3	12	10	3
For Practitioners ...	...	...	...	...	...	9	4	...	6	...
TOTALS ...	8,290	10,693	9,297	7,166	7,165	7,258	6,934	6,708	7,179	7,271

TABLE XLIII.—Venereal Diseases.—Clinics and Attendances during 1928.

Institution	Medical Officer	Days and Hours of Consultations.	Average Number of Patients attending				
			1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Whole Year
Royal Infirmary	...	...	...	...	...	...	...
	Dr. Rupert Hallam...	Monday, 1.30 p.m. to 4 p.m. (Syphilis)...	22	23	24	21	23
	...	Tuesday, 1.30 p.m. to 4 p.m. (Syphilis)	43	36	33	38	38
	...	Thursday, 1.30 p.m. to 4 p.m. (Syphilis)	43	38	39	41	40
	Dr. T. B. Mouat to 31/10/28 Dr. W. J. Lytle from 1/11/28 Dr. Rupert Hallam... Dr. T. B. Mouat to 31/10/28 Dr. W. J. Lytle from 1/11/28	Friday, 2 p.m. to 4.30 p.m. (Gonorrhœa) Wednesday, 6 p.m. to 8 p.m. for Males only, Syphilis and Gonorrhœa	23	17	19	16	19
Royal Hospital	...	...	...	...	...	...	...
	Dr. E. F. Skinner	Tuesday, 11 a.m. to 1 p.m. Men and Women (Syphilis)	8	8	7	7	8
	...	Thursday, 11 a.m. to 1 p.m., Women only do.	14	15	13	12	14
	...	Thursday, 7 p.m. to 9 p.m., Men only do.	13	9	10	9	10
	Dr. J. B. Ferguson Wilson	Saturday, 2 p.m. to 4 p.m., Men only do.	14	11	9	12	12
Jessop Hospital for Women	...	...	...	...	...	...	...
	Dr. J. B. Ferguson Wilson	Tuesday, 7 p.m. to 9 p.m., Men only (Gonorrhœa)	34	37	38	39	37
	...	Friday, 7 p.m. to 9 p.m., Men only do.	42	40	44	37	41
	Dr. J. Chisholm.	Tuesday, 5 p.m. to 7.30 p.m.	31	30	31	32	31
	...	Thursday, 5 p.m. to 7.30 p.m.	25	30	31	32	30
Children's Hospital	...	...	...	...	...	...	...
	Dr. H. Leader	Saturday, 11 a.m. to 1.30 p.m.	13	15	12	12	13
	...	...	...	...	...	...	...
	Dr. H. Leader	Wednesday, 2 p.m. to 4.30 p.m....	12	16	13	15	14
	...	...	...	...	...	...	...



TABLE XLIV.—Venereal Diseases. Summary of Returns with regard to Persons dealt with, Attendances, etc. during the year 1928, and three previous years.

	AREA OF RESIDENCE OF PATIENTS.											
	COUNTY BOROUGH.						COUNTIES.					
	Sheffield	Roth'h'm	Barnsley	Don's'ter	Leeds	Other	Y'ks.W.R.	Notts.	Derbys.	Lincs.	Other	Total
Persons dealt with for the first time at or in connection with the Out-patient Clinics	Royal Infirmary ...	467	19	11	—	—	12	6	9	—	—	552
	Royal Hospital ...	437	—	—	—	—	—	—	14	—	—	482
	Jessop Hospital ...	243	3	—	—	—	—	6	10	—	1	300
	Children's Hospital ...	57	3	5	—	—	—	4	3	1	—	75
	Totals, 1928 ...	1204	25	16	—	—	12	16	36	1	1	1,409
Total attendances at the Out-patient Clinics	Totals, 1927 ...	1,097	34	13	4	1	9	8	36	—	—	1,288
	Totals, 1926 ...	1,069	32	22	5	23	101	18	30	—	—	1,300
	Totals, 1925 ...	940	40	9	—	—	95	26	37	—	49	1,196
	Royal Infirmary ...	23,478	585	260	117	—	520	312	208	—	—	26,052
	Royal Hospital ...	10,670	—	—	—	—	—	—	172	—	—	11,136
Aggregate number of "In-patient days" of all patients	Jessop Hospital ...	3,582	56	—	—	1	—	42	191	—	—	4,274
	Children's Hospital ...	455	10	31	—	—	—	19	193	2	—	722
	Totals, 1928 ...	38,185	651	291	117	1	520	373	764	2	—	42,184
	Totals, 1927 ...	36,666	554	358	169	3	312	420	725	—	—	40,544
	Totals, 1926 ...	39,510	881	701	148	127	1,337	321	808	—	—	44,305
Aggregate number of "In-patient days" of all patients	Totals, 1925 ...	31,505	606	415	—	—	1,809	317	651	4	224	35,423
	Royal Infirmary ...	31	—	—	—	—	—	—	—	—	—	31
	Royal Hospital ...	97	—	—	—	—	21	—	—	—	—	118
	Jessop Hospital ...	940	—	—	—	13	354	50	60	—	18	1,435
	Children's Hospital ...	103	—	—	—	—	—	29	—	—	—	132
Aggregate number of "In-patient days" of all patients	Totals, 1928 ...	1,171	—	—	—	13	375	79	60	—	18	1,716
	Totals, 1927 ...	1,792	54	—	—	—	213	45	247	—	—	2,351
	Totals, 1926 ...	1,405	32	49	—	5	181	—	14	—	—	1,686
	Totals, 1925 ...	1,541	39	95	—	—	44	—	186	—	—	1,905

SALE OF FOOD AND DRUGS ACTS.

TABLE XLV.—Results of Analyses during 1928.

Article	Total Samples Submitted	Formal Samples		Informal Samples	
		Genuine	Adulterated	Genuine	Adulterated
Milk ... ..	822	643	16	154	9
Separated Milk ... ..	4	4	...	...	...
Skimmed Milk ... ..	7	7	...	...	...
Cream ... ..	19	1	...	18	...
Emulsified Cream ... ..	1	...	...	1	...
Cream Checse... ..	2	...	...	2	...
Butter ... ..	47	7	...	40	...
Margarine ... ..	3	2	...	1	...
Lard ... ..	1	1	...	...	...
Brawn ... ..	3	...	...	3	...
Potted Meat ... ..	32	2	1	24	5
Sausages ... ..	19	1	...	18	...
Sausage Meat ... ..	3	...	...	3	...
Mustard ... ..	1	...	...	...	1
Pepper ... ..	2	...	...	1	1
Vinegar ... ..	37	...	7	23	7
Yorkshire Relish ... ..	1	...	...	1	...
Baking Powder ... ..	16	1	...	14	1
Ground Ginger ... ..	1	1	...	...	...
Cream Sandwich ... ..	1	...	...	1	...
Flour ... ..	6	...	...	6	...
Bread ... ..	2	...	...	2	...
Coffee ... ..	10	1	1	5	3
Coffee and Chicory ... ..	2	...	...	2	...
Candied Peel ... ..	1	...	...	1	...
Jam ... ..	6	...	...	6	...
Honey ... ..	2	...	...	2	...
Mince Meat ... ..	2	...	...	2	...
Raisins ... ..	5	...	...	5	...
Ice Cream ... ..	12	...	...	12	...
Mineral Waters ... ..	6	...	...	6	...
Sago ... ..	7	...	...	7	...
Sweet Meats ... ..	2	...	...	2	...
Apples... ..	2	...	...	2	...
Beer ... ..	4	2	...	2	...
Brandy ... ..	5	...	...	5	...
Whisky ... ..	4	...	...	4	...
Rum ... ..	11	...	...	11	...
Camphorated Oil ... ..	5	2	...	3	...
Friars Balsam ... ..	2	...	...	2	...
Sweet Spirit of Nitre ... ..	4	1	2	1	...
Glycerine ... ..	1	1	...	...	...
Powdered Borax ... ..	1	...	...	1	...
Total ... ..	1,124	677	27	393	27

		1925		1926		1927		1928
Percentage of Adulteration	...	5.41	...	5.34	...	5.62	...	4.80

*Proceedings taken under the Sale of Food and Drugs Acts.*

Nature of Samples	Number of Cases	Results
Milk	15	Fines—One £35 ; five others totalling £9 10 0 ; five Vendors warned ; four Vendors warned and charged Costs.
Coffee	3	Fines—One £5 ; two Vendors warned.
Vinegar	7	Fines—Three totalling £7 ; four Vendors fined.
Sweet Nitre	2	Fines—£3.
Potted Meat	1	Fine—£2.

CONTROL OF MILK SUPPLY.

	Number	Cost
		£ s. d.
Chemical Analyses of Milk under Sale of Food and Drugs Acts	852	511 4 0
Biological tests of Milk for Tuberculosis ... ..	1,071	803 5 0
Microscopical examinations of Milk for Tuberculosis ...	254	} Work done by Veterinary Depart- ment Staff.
Clinical examinations of Cows ... ..	7,733	

For further particulars see report under Sale of Food and Drugs Section (page 94), also report of Chief Veterinary Inspector, which follows (page 98), for results of examinations, etc.



## PATHOLOGY AND BACTERIOLOGY.

**TABLE XLVI.**—*Bacteriological Examinations at the Sheffield University during the year 1928.*

MONTH	Swabbings for Diphtheria	Serum for Typhoid	Biological Test of Milk for Tubercle Bacilli
January ... ..	266	45	104
February ... ..	320	38	79
March ... ..	305	135	88
April ... ..	247	40	50
May ... ..	261	61	81
June ... ..	197	58	123
July ... ..	167	53	94
August ... ..	156	33	111
September ... ..	202	86	89
October ... ..	243	129	70
November ... ..	250	51	52
December ... ..	231	64	130
Totals ... ..	2,845	793	1,071

<i>Cost—</i>	£	s.	d.
2,845 Examinations of Swabbings for Diphtheria at 3/6 ... ..	497	17	6
793 „ Serum for Typhoid at 5/- ... ..	198	5	0
1,071 „ Milk for Tuberculosis at 15/- ... ..	803	5	0

**SPECIAL EXAMINATIONS—**

76 Special Examinations, fees ranging from 10/6 to £1	1	0	...	73	4	6
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TOTAL      1572 12 0

*Notes.*—(1) In addition to the examinations carried out at the University, 254 microscopical examinations of Milk for Tubercle Bacilli were made at the Veterinary Department by the Staff ; and 3,671 microscopical examinations of Sputa for Tubercle Bacilli were made by the Staff of the Tuberculosis Dispensary.

(2) Particulars of Examinations in connection with the Venereal Diseases Clinics are given in a table on page 91.

## METEOROLOGY.

TABLE XLVII.—*Meteorology during 1928. Records taken at Weston Park (430' above sea level).*

Week ending.	Mean Barometer Corrected.	Mean Daily Sunshine (Hours).	Grass Minimum. Mean Daily Temperature	Soil 1 Foot. Mean Daily Temperature	Soil 4 Feet. Mean Daily Temperature	Air Maximum. Mean Daily Temperature	Air Minimum. Mean Daily Temperature	Total Rainfall. for the week. (Inches).
Jan. 7th	29.92	0.8	32	35.6	40.1	45	35	2.05
14th	29.70	2.0	35	37.7	40.1	48	39	0.88
21st	29.80	1.5	33	38.1	40.4	46	37	1.47
28th	29.88	2.0	31	38.9	40.8	46	36	1.51
Feb. 4th	*	*	*	*	40.3	*	*	1.45
11th	29.91	2.0	34	39.1	40.3	48	38	1.58
18th	29.76	1.3	38	39.5	40.5	49	40	1.63
25th	30.47	2.5	33	39.5	41.1	48	37	0.94
Mar. 3rd	30.15	2.1	33	38.8	40.9	49	36	0.88
10th	30.09	1.6	34	40.9	41.3	46	37	0.39
17th	30.17	0.4	30	37.0	41.0	40	31	0.63
24th	29.54	2.4	37	41.6	40.9	54	41	0.41
31st	29.39	4.0	33	42.2	42.1	51	38	0.74
April 7th	29.75	5.8	33	42.4	42.4	52	38	0.46
14th	29.64	2.4	40	46.0	43.5	55	43	0.36
21st	29.88	3.6	27	41.5	44.0	44	32	0.21
28th	30.00	3.5	36	44.5	43.3	61	42	0.07
May 5th	29.87	3.5	44	48.0	45.1	58	45	0.28
12th	30.04	6.7	35	48.5	46.4	56	40	0.02
19th	29.84	1.2	37	47.6	46.7	52	41	0.89
26th	30.08	2.1	40	47.1	46.6	54	42	0.23
June 2nd	30.17	4.6	45	52.9	47.6	66	49	0.01
9th	29.77	4.6	43	52.8	49.4	61	47	1.13
16th	29.92	6.0	41	53.6	50.3	61	45	1.42
23rd	29.94	6.3	45	54.3	50.9	63	48	0.30
30th	29.90	6.0	48	56.6	52.2	62	50	0.98
July 7th	29.96	4.8	47	56.9	53.0	64	51	0.23
14th	30.18	10.8	50	59.2	53.9	74	55	—
21st	30.27	11.0	49	61.3	55.9	71	56	—
28th	29.97	4.2	53	60.9	56.6	68	56	0.08
Aug. 4th	30.00	7.0	43	58.0	56.8	63	47	0.39
11th	*	*	*	*	56.2	*	*	*
18th	29.85	5.5	49	59.1	56.5	66	53	0.23
25th	29.75	4.4	50	58.4	56.3	68	54	0.96
Sept. 1st	29.93	6.6	46	58.4	56.7	66	51	1.04
8th	30.06	6.2	48	57.9	56.3	71	53	0.09
15th	30.27	3.2	43	56.6	56.2	65	49	0.05
22nd	30.29	4.5	41	54.4	55.4	60	47	0.01
29th	30.02	1.6	40	51.8	54.1	56	44	0.08
Oct. 6th	30.18	3.6	37	49.3	52.7	56	43	0.25
13th	29.86	2.2	43	50.5	51.9	57	46	1.99
20th	29.85	2.4	43	49.5	51.3	56	45	0.95
27th	29.50	3.5	38	47.9	50.6	53	43	1.47
Nov. 3rd	29.79	2.3	40	47.3	49.8	51	42	0.29
10th	29.97	1.3	34	44.0	48.6	47	38	0.25
17th	29.51	2.3	42	45.6	47.5	55	45	1.29
24th	29.62	1.1	41	45.4	47.3	54	44	2.57
Dec. 1st	29.89	3.0	38	42.8	46.8	49	41	0.71
8th	30.21	1.8	31	40.6	45.5	45	35	0.16
15th	29.81	0.3	29	37.4	43.8	38	31	0.68
22nd	30.25	1.6	30	36.8	42.3	45	35	0.18
29th	29.99	0.4	32	38.3	41.7	45	36	0.91

\* Records not available.

## REPORT OF THE CHIEF VETERINARY INSPECTOR

### FOR THE YEAR 1928.

#### DISEASES OF ANIMALS ACTS AND ORDERS.

The following is a list of the Contagious Diseases which are scheduled under the above :—

Anthrax, Foot and Mouth Disease, Parasitic Mange of Horses, Rabies, Sheep Scab, Swine Fever, Cattle Plague, Pleuro Pneumonia, Sheep Pox, Epizootic Lymphangitis, Glanders and Farcy, Epizootic Abortion of Cattle.

Of the above, no outbreaks of Cattle Plague have been reported since 1877, nor of Pleuro Pneumonia since 1898, nor of Sheep Pox since 1850, nor of Epizootic Lymphangitis since 1906.

#### *Anthrax.*

One suspected outbreak of Anthrax was reported on premises in the City. This outbreak was investigated but the presence of the disease was not confirmed.

Cases of Anthrax in animals occur periodically and the great importance of not attempting to cut or dress an animal taken ill suddenly and found on the point of death or an animal found dead is impressed upon stock owners because of the risk of human infection.

#### *Rabies.*

No case of Rabies has occurred in Great Britain since 1922, and with a view to preventing the introduction of Rabies from abroad, imported dogs have to be detained and isolated for 6 months on premises approved by the Ministry of Agriculture unless brought in for performing purposes. They are licenced to these places by the Ministry and kept under supervision by the Local Authority. In the latter case they are permitted to go from different places of performance and detained and isolated at these places.

These regulations are carried into effect when imported animals arrive in Sheffield. Suspected cases of Rabies are also reported to the Department, such as dogs suffering from hysteria and convulsions. These cases are investigated and kept under observation.

#### *Foot and Mouth Disease.*

Two cases of suspected Foot and Mouth Disease were reported on premises in the City. These were investigated and the existence of the disease was confirmed.

The affected and contact animals were slaughtered and those found affected were sent to the Corporation Destructor and burned.

It was found that the source of infection must have originated from a cattle market from which the affected animals came to Sheffield.

The usual precautions as to disinfection of the premises and everything which had been in contact with the affected animals were carried out.

In connection with these outbreaks all movements of animals were controlled by licences issued by this Department or by Inspectors of the Ministry of Agriculture.

#### *Parasitic Mange.*

One suspected case of this disease was investigated during the year, but the disease was not confirmed.

One of the first Orders dealing with Parasitic Mange was granted by the Ministry of Agriculture and Fisheries to Sheffield, and the value of the precautions taken under the Order is shown by the fact that the disease in Sheffield is now almost non-existent.



*Swine Fever.*

Eighty-three cases of illness or death of pigs were reported during the year to the Ministry of Agriculture and Fisheries in compliance with the Swine Fever Order. These cases were investigated by the Veterinary Inspectors of the Ministry and four confirmed as Swine Fever. The carcasses of affected animals were destroyed at the Corporation Destructor, and the usual precautions were taken with regard to disinfection of the infected premises, isolation of contact pigs and supervision of their slaughter ready for the butcher or the destruction of carcasses of animals subsequently becoming diseased.

Infected premises are generally kept under restrictions for at least three months, but where pigs subsequently die, the premises are only declared free two months after the death of the last pig. Pigs may only be moved from infected premises on a licence granted by an Inspector of the Ministry of Agriculture, and then only if found healthy, and only to a slaughterhouse for immediate slaughter.

*Swine Erysipelas.*

This disease causes death in considerably more pigs than does Swine Fever, but it is not a scheduled disease by the Ministry of Agriculture and therefore no restrictions on movement of animals or disinfection of the premises are placed on the owners of affected animals. Of the 83 cases of deaths amongst pigs in the City a large percentage was due to Erysipelas infection. In most of these cases the owners were advised as to the precautions which they should take in regard to preventive measures against the spread of the disease to other pigs.

*Epizootic Abortion.*

No cases of this disease were found in the City during the year. The Epizootic Abortion Order prohibits the exposure of affected animals in markets, the sale privately of affected animals without previous information being given to the intending purchaser and the service of cows within two months of premature calving.

*Orders and Regulations.*

In addition to the numerous Acts and Orders at present in force in relation to Contagious Diseases of Animals, Meat, Milk and Food inspection generally, the following Orders and Regulations were issued by the Ministry of Agriculture during the year 1928 and which it is incumbent on the Local Authority to execute and enforce:—

Importation of Carcasses (Prohibition) (Amendment) Order, 1928.

Foot and Mouth Disease (Boiling of Animal Foodstuffs) Order, 1928.

Sheep Scab Order, 1928.

Foot and Mouth Disease Order, 1928.

Pleuro-pneumonia Order, 1928.

Cattle Plague Order, 1928.

Quarantine Stations (Regulation) Order, 1928.

Regulation of Movement of Swine (Adjustment of Boundary) Order, 1928.

Sheep Scab (Amendment) Order, 1928.

Birkenhead Imported Animals Wharf Order, 1928.

Quarantine Stations (Regulation) Order, 1928 (No. 2).

Amendment of Chap. 6 (Protection of Animals) of the Foreign Animals Order of 1910 and in Part 7 (Protection of Animals) of the Importation of Canadian Cattle Order of 1923.

Foreign Hay and Straw (Amendment) Order, 1928.

Foot and Mouth Disease (Infected Areas Restrictions) (Amendment) Order, 1928.

Importation of Dogs and Cats Order, 1928.

*TUBERCULOSIS ORDER, 1925.*

During the year 572 inspections of the herds in the city were carried out by the Veterinary Inspectors, 49 cows were found suffering from scheduled forms of tuberculosis and were slaughtered under the Order. Of these 20 were found affected with tuberculosis of the udder and 29 with other forms of tuberculosis.

Table showing the number of animals dealt with and the total compensation paid under the Order since it came into force on September 1st, 1925.

	Sept.-Dec. 1925.	Jan.-Dec. 1926.	Jan.-Dec. 1927.	Jan.-Dec. 1928.
Estimated number of cows in herds examined	1300	3854	3076	2970
No. of animals slaughtered ... ..	27	82	57	49
No. affected with T.B. of the udder ...	9	32	23	20
No. affected with other forms of T.B. ..	18	50	34	29
No. with advanced T.B. on post-mortem	18	48	20	28
No. not advanced T.B. on post-mortem	9	34	37	21
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Total compensation paid ...	169 0 0	357 10 0	331 5 0	272 0 0
Amount of Exchequer Grant ...	126 15 0	268 2 6	248 8 9	204 0 0
Salvage received ... ..	132 19 4	304 9 1	248 5 2	223 2 2
Excess salvage paid ... ..	4 14 4	40 5 9	6 5 8	2 0 5
Balance towards administration .	86 0 0	174 15 10	153 3 3	153 1 9

## DAIRY INSPECTION.

Under the Milk and Dairies (Consolidation) Act, 1915, the Milk and Dairies (Amendment) Act, 1922, and the Milk and Dairies Order, 1926, the applications of milk retailers for registration were dealt with by the Sanitary Sub-Committee. 362 applications were granted, 17 were refused, and 12 were withdrawn. There was one appeal against the decisions of the Committee to refuse registration or remove from the register, which was upheld. Twenty-six prosecutions were taken.

The Sheffield Health Committee, exercising their powers under the above Acts and Orders, requested that milk retailers before being registered to retail milk within the City should provide on their premises a dairy wash-house, apart from their dwelling house, where milk vessels must be washed and stored. A dairy in which to store milk is also required in the case of those who do so and have no hot water supply other than by lighting a fire in the dairy wash-house.

The following list of suggestions was sent to the retailers in order that they might comply with the above requirements and visits were made by the Veterinary and Dairy Inspectors to the premises of retail purveyors.

*Dairy accommodation for persons residing outside the City and retailing milk within the City.*

To entitle an applicant to registration, the Health Committee of the City Council require satisfactory separate accommodation for washing and storing the milk vessels and for cooling and storing milk. This can best be obtained by providing :—

A separate *dairy wash-house*, constructed of stone, brick or concrete, with a concrete or slated roof, and with a concrete floor levelled to carry liquid through a weep-hole under the sink discharging over a gully outside.

The internal surface of the walls should be rendered with sand and cement finished to a smooth surface so as to be easily cleansed.

The building should be efficiently lighted and ventilated by means of windows and air-grates, and in case of a slated roof the latter should be underdrawn so as to be made dust-proof.

A glazed stoneware sink provided with a stopper and large enough and deep enough to allow milk bottles to be sunk in it should be placed where a good light is available and the waste-pipe should be made to discharge over a gully outside.

Where a piped supply of water is available, cold water should be piped to a tap over the sink and where a hot water system is provided in the house, hot water probably may be piped over the sink in a similar manner. If a hot water system is not in existence a set-pot boiler



should be built in the dairy wash-house to provide hot water independently, or the latter may be obtained from a copper boiler heated by gas or some other means.

Sawn stone benching should be provided about 1ft. 9in. wide and placed at a sufficient height from the floor to allow churns and large bottles to stand underneath, small churns and bottles being stored on the bench.

*Dairy.*—Separate accommodation apart from the dairy wash-house should be provided for cooling and storing the milk. The structure of the dairy should be practically the same as the dairy wash-house and all windows and other openings should be covered with  $\frac{1}{32}$ in. mesh wire gauze to make the dairy fly-proof. Where hot water is available without having to light a fire in the dairy wash-house, the milk might be stored in churns from night until morning, the one building being used as a combined dairy and dairy wash-house.

*Drainage.*—An efficient system of drainage to take away the water used in washing the milk vessels and the surface water from the floors should be provided and should be connected to a drainage system or public sewer.

*Situation.*—If possible, the dairy and dairy wash-house should be so situated as to have a northern aspect, and for convenience it should be somewhere in the vicinity of the cowshed, but not connected therewith, and should be some distance away from the manure pit or a privy or pail closet.

A careful supervision of the sanitation of cowsheds in the City and the production and handling of the City's milk supplies was made by the Veterinary and Dairy Inspectors.

*Graded Milk.*—Under the Milk (Special Designations) Order issued by the Ministry of Health, four grades of milk are mentioned—"Certified," "Grade A (Tuberculin Tested)," "Grade A," and "Pasteurised." One application has been made for a licence to sell certified milk and two applications have been made with regard to pasteurised milk.

*Elimination of Tuberculous Infection from the City's milk supply.*—In this connection there are 156 cowkeepers resident within the City, the milk from these herds being principally retailed by the owners within the City. The herds were examined five times during the year, and the milk from any diseased animal was prohibited for human consumption.

The total maximum number of cows kept in the City was 2,228, allowing each cow to be in a City cowshed 8 months, it follows that about 742 fresh cows must be added to that number, making about 2,970 in the City cowsheds to be examined during the year.

The number of inspections of city cows made was 6,732, and 22 cows having tubercular udders were discovered—equal to a percentage on 2,970 of 0.74. The number of visits made by the Veterinary Inspectors to the city farms was 572.

During the year 1,027 samples of mixed milk brought into the City were taken for bacteriological examination, 65 of which, equal to 6.3 per cent. gave a positive result, whilst 962 were negative.

In following up the 65 tuberculous samples, 84 visits were made to 67 farms and the udders of 1,001 cows examined. 44 cows suffering from tuberculosis of the udder and giving tuberculous milk, and 8 cows with other forms of tuberculous infection were found. At three farms no cows with tubercular udders were found on the date of our examination, but it was ascertained from the officers of the Local Authorities concerned that a cow at each of the three farms had been slaughtered during the period of the sample undergoing the biological test and found suffering from tuberculosis of the udder, thus making a total of 47 cows with tuberculosis of the udder.

*Control samples.*—Altogether 73 control samples were taken representing 67 farms. 17 of these samples, equalling 23.2 per cent. were found tuberculous. These tuberculous controls were investigated and the cows whose milk was included in them were re-examined.

*Special samples.*—A total of 254 special samples was taken, 100 being from city cows, 22 of which were positive, and 154 from country cows, 44 of which were positive.



Twenty-two of the city cows and 31 of the country cows were found giving tuberculous milk by bacteriological examination of the milk alone, and 13 of the country cows and one of the city cows were found by the biological test. Three cows giving tuberculous milk were also found by the County Authorities, making a total of 69 cows giving tuberculous infection in their milk supply.

*Mixed samples.*—A mixed sample is a sample of milk from the mixed milk of a herd, sent into Sheffield for sale by rail or road conveyance.

*Control samples.*—A control sample is a sample of milk taken from a herd that is being inspected either during routine inspection or following up a tuberculous milk sample.

*Special samples.*—A special sample is a sample of milk taken from a cow with a suspicious udder found when inspecting herds in the city or country, from which milk is consumed in Sheffield.

During the year 1928, the procedure in dealing with tuberculous infection in the milk supplies coming into the City has been carried out under the Milk and Dairies (Consolidation) Act, 1915. This Act came into force in 1925 and revoked the Milk clauses of the Sheffield Consolidation Act from September, 1926. Now the Milk and Dairies Act requires the Local Authority of the area from which the tuberculous milk was sent to make investigations into the source of the infection and notify the time of their intended visit and examination of the herd, so that the consuming area's officers may also be present. Since September, 1926, this alteration in the procedure has been carried out, and the investigations made were in conjunction with the Local Authority of the producing area.

The Tuberculosis Order of 1925 works in conjunction with the tracing of tuberculous milk under the Act, namely, it empowers the slaughter of animals which are the source of tuberculous infection in the milk supply. It also empowers Local Authorities to slaughter other animals suffering from certain forms of tuberculosis which may not be actual sources of infection of the milk supply at present, but are potential sources of spread of the disease to their milk supply, and are infectious to other animals in contact with them.

The value of the diseased animal is agreed upon between the farmer and the Local Authority of the area in which the animal is situated, and a percentage of the valuation is paid to the owner according to the extent of the disease in the carcase on post-mortem examination.

During the year, in the examination of country herds following up tuberculous milk samples coming into the city from outside areas 47 cows suffering from tuberculosis of the udder, giving tuberculous milk, were found, and also 8 cows suffering from other forms of tuberculosis. These animals were all slaughtered by the Local Authorities of the respective areas in which the animals were found. In the City routine examination of all the dairy cows was carried out, and 22 cows suffering from tuberculosis of the udder, giving tuberculous milk, and also 27 cows suffering from other scheduled forms of tuberculosis were found and slaughtered.

In previous years a considerable number of country cows affected with tuberculosis of the udder were sold by the owners, their ultimate destination being concealed. These animals are now being dealt with under the Tuberculosis Order, and all such cows found are slaughtered. The Tuberculosis Order, is, therefore, a valuable Public Health measure in removing cows from dairy herds which are giving tuberculous milk.

## NUMBER OF SAMPLES OF MILK BACTERIOLOGICALLY EXAMINED FOR TUBERCULOUS INFECTION.

	1924.	1925.	1926.	1927.	1928.
Mixed Samples ... ..	966	913	993	1166	1027
Number found Tuberculous ... ..	73	91	64	93	65
Percentage ... ..	7.5	9.8	6.4	7.9	6.3
Control Samples ... ..	112	144	102	124	73
Number found Tuberculous ... ..	21	27	19	22	17
Percentage ... ..	17.85	18.75	18.6	17.7	23.2
Samples from cows with suspicious udders ... ..	146	179	302	250	254
Tuberculous—Biological ... ..	30	35	15	15	14
Do. Microscopical ... ..	45	47	65	63	52
Do. Total number found ... ..	75	82	80	78	66
Percentage ... ..	51.37	45.9	26.5	31.2	25.9
Estimated number of cows on country farms where mixed milk samples were free from tuberculous infection ... ..	16,020	14,742	14,025	17,168	14,430
Number of country cows clinically examined for tuberculosis of the udder, in following up tuberculous mixed samples ... ..	1,282	1,747	1,019	1,540	1,001
Tuberculous ... ..	52	59	48	60	47
Percentage ... ..	4.84	4.05	4.8	3.8	4.6
Number of city cows clinically examined for tuberculosis of the udder ... ..	6,950	9,135	10,652	9,771	6,732
Tuberculous ... ..	23	20	32	23	22
Percentage ... ..	.6†	.5‡	.8°	.7*	.7§
Disposal of cows with tuberculous udders :—					
Killed ... ..	58	89	80	83	69
Passed ... ..	34	51	37	39	32
Percentage ... ..	58.6	57.3	46.2	46.9	46.3
Condemned ... ..	24	38	43	44	37
Percentage ... ..	41.4	42.7	53.7	53	53.6
Sold or otherwise lost sight of ... ..	17	5	0	0	0

† Percentage on 3,520 only  
‡ Do. 3,800 only  
° Do. 3,854 only  
\* Do. 3,076 only  
§ Do. 2,970 only

## BACTERIOLOGICAL EXAMINATION OF MILK.

With a view to stopping the sale of milk from an animal affected with tubercular mastitis at the earliest possible moment, all the special samples taken were examined microscopically.

If the examination of the milk microscopically results in the demonstration of tubercle bacilli, the cow is slaughtered forthwith. In practically every case this means that the milk from the rest of the herd is now free from tuberculous infection, whereas if one were to wait for the biological test (*i.e.* 28 days), then the consumers of milk from this dairy would be drinking tubercle infected milk for this period. As a rule, at the end of 28 days the report comes in that the control sample, that is, the sample from the remainder of the herd, is free from tuberculous infection.

The milk yield per day from each cow is estimated at 2½ gallons, whilst the average number of cows found on the country farms visited during 1928 was 15, and on the city dairy premises 13. Taking into consideration the fact that the milk has been freed from



tuberculous infection for 28 days, then the source of infection has been removed from 945 gallons in the case of country samples, and 819 gallons in the case of city samples per day for 28 days.

In 1928, 31 country cows and 22 city cows were found to be suffering from tuberculosis of the udder by microscopical examination of the special samples. Thus 47,313 gallons (29,295 and 18,018) of milk were freed from infection, which otherwise would have been tubercle infected and consumed in the City.

BACTERIOLOGICAL EXAMINATIONS FOR TUBERCULOSIS MADE IN FOLLOWING UP POSITIVE MIXED SAMPLES, AND IN ORDINARY INSPECTION OF CITY COWS, DURING 1928.

Total number of Samples taken from cows showing symptoms suspicious of									
tuberculosis of the udder	...	...	...	...	...	...	...	...	254
do. found positive microscopically	...	...	...	...	...	...	...	...	52
do. „ negative „	...	...	...	...	...	...	...	...	202
Of the 155 sent for the biological examination—									
	14	returned	positive						
	141	„	negative						

Thus definite results have been obtained from 207 samples of milk, and of these 66 have been proved definitely positive. Out of this 66, 52 were found microscopically, or a percentage of 78.7.

99 negative microscopic samples were not examined by the biological test, as the microscopical examination showed the presence of organisms other than Tubercle Bacilli, or other evidence was present that the disease in the udder from which the sample was taken was not of a Tuberculous nature.

17 samples of sputum from suspected tubercular cows were examined microscopically.  
 12 contained tubercle bacilli.  
 5 were negative.

These microscopic examinations of milk samples in addition to clinical inspections and the examination of sputum, urine, etc., were carried out in the diagnosis of cows suffering from tuberculosis before slaughter under the Tuberculosis Order, 1925.

Complaints are periodically received from customers in regard to their milk supply, either from the presence of some unusual colour such as blood or some abnormal taste. In such cases samples are taken by the Food and Drugs Inspector and submitted to the City Analyst and to this laboratory.

In this way it is often possible to detect abnormalities in the milk or the inclusion of the milk from a diseased cow. An inspection of the herd and premises from which the milk was dispatched is then made and the cause of the complaint investigated.

In the sampling of milk for chemical analysis under the new Regulations which came into force in September, 1925, viz., the 3rd Schedule of the Milk and Dairies (Consolidation) Act, Sec. 6, if a sample of milk is taken for analysis under the Sale of Food and Drugs Act the owner may appeal to the Local Authority within 60 hours for a sample of milk to be taken from his cows. The Inspector of the Local Authority who takes the sample at the dairy may take any steps he thinks necessary to satisfy him that the sample is a fair one of the milk when the cows are properly and fully milked. These samples are known as “appeal to the cow” samples. They are of value in arriving at a decision as to the genuineness or otherwise of the original sample taken which was below standard. A notice requesting an appeal to the cow may be made by dairymen each time their milk is sampled for chemical analysis.

In this connection 10 visits were made by the Assistant Veterinary Inspectors in company with the Food and Drugs Inspector. The cows were examined at the completion of each milking and certificates given that the cows were properly milked when the appeal to the cow sample was taken.

CORPORATION STUB.

During the year 40 visits were paid to examine and treat horses in Corporation stables.



## MOTOR CAR SERVICE.

Motor cars were hired from the Central Motor Garage during the year at a cost of £810 2s. 7d. for 2,000½ hours, the distance travelled being 15,137 miles. This represents a charge of 1/- per mile or 8/1 per hour. In addition taxicabs were hired at a cost of £21 1s. 7d.

## MEAT INSPECTION.

## MARKETS, SHOPS, SLAUGHTERHOUSES AND STORES.

In this connection the weekly live-stock markets at Wadsley Bridge and Furnival Road were attended by Inspectors of the Department for the inspection of live animals and the issue of licences under the Diseases of Animals Acts.

The slaughter-houses, meat and fish markets and cold stores were regularly inspected, the total number of visits paid being 7,969 to slaughter-houses, 3,513 to the market places, shambles, shops, stores, etc.

The number of slaughter-houses in use last year was 159, 41 of which belong to the Corporation and are let out to butchers. Of the 118 private slaughter-houses 84 are licensed annually under the Sheffield Corporation (Consolidation) Act, 1918. In addition there are three licensed horse slaughter-houses and one place licensed as a knacker's yard.

In addition to the above, a number of carcasses of fresh meat slaughtered outside the City boundary are brought into the City.

The Public Health (Meat) Regulations, 1924, were enforced, and judgment of unsound meat was carried out on the lines of the recommendations laid down in Memo. 62, Foods for Condemnation, under the Public Health Act, 1875.

The following diseased or suspected animals and carcasses were brought into No. 25 Shambles (the slaughter-house set apart by the Corporation for the slaughter of diseased or suspected animals and as a detention room for such meat):—931½ carcasses of beef, of which 201 were condemned; 78 carcasses of mutton, 66 of which were condemned; 38 carcasses of pork, 14½ being condemned; 75 carcasses of veal, 43 of which were condemned.

The total amount of diseased meat, offals, fish, and unsound food condemned during the year was as follows:—

*Meat.*—105 tons 11 cwts. 3 qrs.

*Fish.*— 20 „ 3 „ 3 „

*Preserved food.*—1,235 tins of canned goods.

*Game, etc.*—1 brace of pheasants, 2 brace partridges, 12½ brace wood pigeons, 9 fowls, 4 hares, 8 crates turkeys, 8 geese, 531 couples rabbits.

*Eggs, etc.*—992½ doz. eggs, 11 lbs. liquid eggs.

*Fruit and Vegetables.*—233 chips tomatoes, 18 boxes pears, 14 boxes and 8 gallons apples, 8 bags potatoes, 1 truck swedes, 86 kits sprouts, 70 baskets lettuce, 7 crates asparagus.

In carrying out the inspection of the above meat and other foods a large number of bacteriological examinations of specimens were carried out in the laboratory.

Estimated number of animals slaughtered annually in the Shambles and private slaughter-houses for the City's fresh meat supply:

No. and Class of Animals	Average Weight	Total Weight
35,464 cattle	47 st.	10,412 tons 16 cwts.
90,844 sheep	66 lbs.	2,554 „ 19 „
47,892 pigs	15 st.	4,489 „ 7 „
4,680 calves	56 lbs.	117 „

The estimated weight of imported meat, comprising frozen and chilled meat, brought into the City shops was equal to that of the fresh meat supply.

INSPECTION OF HORSES AND CARCASES FOR EXPORTATION ABROAD.

Number of horses submitted for examination	...	...	778
Number of carcases passed for food	...	...	772
Number of carcases condemned unfit for food	...	...	6
Number of carcases exported abroad	...	...	772
Number of visits paid to horse slaughter-houses	...	...	261
Number of horse slaughter-houses	...	...	3

All condemned food stuffs are sent to the Corporation Destructor where they are either dealt with for salvage purposes or destroyed by burning.

PUBLIC HEALTH ACT.

All diseased meat, etc., inspected and condemned was submitted to inspection or surrendered by the owners, with three exceptions only.

PROSECUTIONS.

*Milk and Dairies Order, 1926*

Failing to wash churns before return to senders,	24	defendants	5/-	each
do.	do.	1	„	2/6 „

*Regulation of Movement of Swine Order*

	£	s.	d.
Movement of pigs without Licence	...	...	...
do.	2	0	0
do.	0	5	0
Failing to isolate pigs moved on Licence	...	...	...
do.	0	5	0
do.	1	0	0
do.	Dismissed		

*Public Health (Meat) Regulations*

Having diseased meat on his premises	...	...	...	...	20	0	0
Depositing diseased meat	...	...	...	...	10	0	0
Offering unsound meat for sale	...	...	...	...	5	0	0

*Sale of Food Order*

Failure to mark imported meat	...	...	...	...	2	0	0
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*Movement of Animals (Records) Order*

Failing to keep register,	2	defendants	5/-	each.
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My thanks are due to the members of the Staff for the willing assistance they have given me in the work during the year, and also the Chief Constable and Police for the assistance they have rendered.

J. S. LLOYD, F.R.C.V.S., D.V.S.M. (Vict.),  
Chief Veterinary Inspector.